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**Group Resource Rights and the Protection of  
Indigenous Knowledge Systems in  
International Law**

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Submitted in fulfilment of the requirements for the  
Degree of Doctor of Philosophy

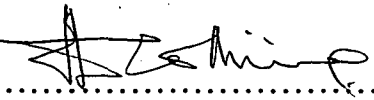
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March 2007

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## Thesis Abstract

This thesis considers the nature of indigenous knowledge systems, and recommends how the interests of indigenous and local communities could be protected in their knowledge systems. The need to protect indigenous knowledge is based on the increasing internationalization of indigenous issues in recent years, and the increasing accessibility to indigenous knowledge systems by non-indigenous entities. This increased external access is allied with attendant commercialization of several aspects of indigenous knowledge systems and resources. In turn, the commercialization of these knowledge systems and resources has engendered allegations of 'biopiracy': that is, the unauthorized or uncompensated access to indigenous knowledge and resources. This situation creates tensions between local communities and the states, and sometimes, between developing and developed states. In consequence, therefore, there is the imperative to protect the knowledge systems that have for centuries constituted the means of personal expression, survival and subsistence for indigenous and local communities.

In brief, the crux of this thesis is that indigenous knowledge systems are peculiar in several respects, reflecting the distinct social and cultural practices of diverse local communities. Therefore, a good understanding of these peculiarities is a vital starting point in any effort to protect these knowledge systems. In the main, these peculiarities relate to three major aspects of the nature of indigenous knowledge. The first aspect relates to the holistic nature of indigenous knowledge: this attribute implies that local communities nurture and exploit indigenous knowledge essentially as 'unified body of knowledge systems,' and do not compartmentalize knowledge into distinct components. The second aspect relates to the cumulative or inter-generational accumulation of knowledge across many generations, and over several

centuries. These two attributes lead to the third: the preponderance of group or communal use and ownership of knowledge and resources by local communities.

This thesis affirms that the need to protect indigenous knowledge systems exposes the inadequacies inherent in existing intellectual property right (IPR) mechanisms for this purpose. Furthermore, key existing treaties, including the *Convention on Biological Diversity (CBD) 1992*, and the *ILO Convention on Tribal Populations 1982*, among others, fall short of adequately protecting indigenous rights, knowledge, and interests. These inadequacies stem from the combined effects of the three factors noted above, especially the group nature of indigenous rights and resource holding.

In consequence of the above, to effectively protect the resource rights and interests of indigenous and local communities, this thesis proposes the adoption of an *International Convention on the Cultural and Resource Rights of Indigenous Peoples*. This Convention is to act as a framework instrument for the *sui generis* domestic protection of indigenous cultural and resource rights as 'group rights,' to accommodate collective interests of indigenous and local communities, while allowing access to interested parties. In doing this, this thesis deliberately separates indigenous 'cultural and resource rights' from the issue of indigenous self-determination. This is to ensure that the adoption of the Convention by the international community is not entangled in the same web of international politics that has trailed the meaning of 'indigenous self-determination' for decades. In this way, getting control of effective cultural and resource rights would be a positive step for local communities.



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## **Dedication**

This thesis is dedicated to the memory of my Beloved kid Sister:

Cecilia Okpanum

Cee, let it be.

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# General Introduction

Issues concerning indigenous communities and their knowledge systems have attracted increased global attention in recent decades.<sup>1</sup> The international community, especially through the United Nations (U.N.), has devoted considerable amount of attention to issues concerning indigenous peoples. Two U.N. bodies, the Working Group on Indigenous Population (WGIP),<sup>2</sup> and the Permanent Forum on Indigenous Issues (PFII),<sup>3</sup> are extensively involved in articulating indigenous issues on the global level. Several Non Governmental Organizations (NGOs) are also working on indigenous issues.<sup>4</sup> The issues involved are quite diverse and complex, ranging from the persistent agitation for indigenous self-determination, to the issue of access to indigenous knowledge systems and resources.

This work is not primarily concerned with the issue of indigenous political self-determination. That aspect of indigenous interest has been discussed extensively elsewhere.<sup>5</sup> On the contrary, this work deals with the issue of the group nature of indigenous rights, and how such collectivity could be protected in relation to indigenous knowledge systems and resources.<sup>6</sup> In doing this, the thesis will examine the nature of indigenous knowledge systems and how they have been managed and preserved in the past. It

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<sup>1</sup> See Bosire Maragia, 'The Indigenous Sustainability Paradox and the Quest for Sustainability in Post-Colonial Societies: Is Indigenous Knowledge All that is Needed?' (2006) 18 *Georgetown International Environmental Law Review* 197, 201.

<sup>2</sup> For details on the activities of the WGIP, see 'Working Group on Indigenous Populations' at <<http://www.ohchr.org/english/issues/indigenous/groups/groups-01.htm>> 7 July 2006.

<sup>3</sup> For details on the PFII, see the 'U.N. Permanent Forum on Indigenous Issues' at <<http://www.un.org/esa/socdev/unpfii/>> at 7 July 2006.

<sup>4</sup> Among these are the ETC Group, (formerly RAFI), the Third World Network (TWN), Indigenous Council of Biocolonialism, GRAIN International, among several others.

<sup>5</sup> See generally James S. Anaya, *Indigenous Peoples in International Law* (1996); Paul J. Magnarella, 'The Evolving Right of Self-Determination of Indigenous Peoples' (2001) 14 *St. Thomas Law Review* 425; Robert B. Porter, 'Legalizing, Decolonizing, and Modernizing New York State's Indian Law' (1999) 63 *Albany Law Review* 125.

<sup>6</sup> See Joseph E. Bush, 'Defining Group Rights and Delineating Sovereignty: A Case from the Republic of Fiji' (1999) 14 *American University International Law Review* 735, 744-747.

should be noted however, that in most cases, the issues to be discussed cannot be compartmentalized into distinct units, since they are interlocking in several respects. This may explain why some scholars tend to group together the issue of indigenous knowledge, resources, and self-determination in their analysis.<sup>7</sup> This work will not adopt such an approach.

There is a growing global attention paid to indigenous knowledge systems and resources. This attention stems from the utility of these systems and resources to the world economy. For instance, over the past decade, the value of indigenous resources and knowledge systems to the world food and pharmaceutical industries has been acknowledged as substantial.<sup>8</sup> Apart from the physical natural resources, it has been established that age-long indigenous medicinal practices have helped to improve the effectiveness of the global drug medicinal researches. In fact, according to Shaman Pharmaceuticals, over seventy-five percent of plant-based drugs presently in use were discovered by studying the uses of the plants in traditional medicine.<sup>9</sup> However, as explained below, it appears that indigenous knowledge systems are becoming victims of their own successes in this respect.

The proven utility of indigenous knowledge systems in several aspects of the modern world has created a form of paradox: global demand for access to these knowledge systems has tremendously increased in recent years, while indigenous resistance to any unregulated access to their resources has also increased. This situation has created several forms of tensions, some between

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<sup>7</sup> See Jose M. Molintas, 'The Philippine Indigenous Peoples' Struggle for Land and Life: Challenging Legal Texts' (2004) 21 *Arizona Journal of International and Comparative Law* 269.

<sup>8</sup> See Steven R. King, 'The Source of Our Cures: A New Pharmaceutical company Wants to Provide Reciprocal Benefits and Recognize the Value of Indigenous Knowledge' (1991) *Cultural Survival Quarterly* 19.

<sup>9</sup> See Donald E. Bierer et al, 'Shaman Pharmaceuticals: Integrating Indigenous Knowledge, Tropical Medicinal Plants, Medicine, Modern Science and Reciprocity into a Novel Drug Discovery Approach' at <<http://www.netsci.org/Science/Special/feature11.html>> at 8 July 2006.

indigenous communities and the states on account of being sidelined in the access process, others between developing and developed countries regarding unfavourable multilateral relationships. In turn, this situation has led to allegations of 'biopiracy' against entities from developed countries. 'Biopiracy' is the term that describes the uncompensated or unacknowledged access to indigenous knowledge and resources.<sup>10</sup>

The issue of biopiracy have been exacerbated in recent decades by the increased interactions between indigenous and local communities and the outside world. In this era of globalized world economy and technological advancements, the interlinkages among the different aspects of human interactions are clearly manifest.<sup>11</sup> In the present context, globalization connotes the widening of horizons and establishing synergistic relationships as countries and peoples intermingle in diverse areas of interactions.<sup>12</sup> However, for local communities, the process of globalization seems to create more problems than solutions. According to Professor Seita, 'the process of globalization has expanded the perimeters of a marketplace beyond national boundaries for many commodities,'<sup>13</sup> and such economic forces, while bringing certain benefits, also spread transnational violence.<sup>14</sup> This work uses the term 'transnational violence' as a metaphor to describe the type of negative effects that globalization could produce.<sup>15</sup> An example of this is the Brazilian Amazonia, where several multinational corporations are scrambling

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<sup>10</sup> This issue is discussed in full in chapter five of this work.

<sup>11</sup> The subject of globalization means different things to different persons, that is, depending on their perceptions of world affairs. See 'John Sinclair, 'Globalization and Indigenous Peoples' Statement by the Observer Delegation of Canada on the Theme: 'Globalization and Indigenous Peoples' U.N. Working Group on Indigenous Populations, July 21-25, 2003, at [http://www.ainc-inac.gc.ca/nr/spch/unwg/glob\\_e.html](http://www.ainc-inac.gc.ca/nr/spch/unwg/glob_e.html) 8 July 2006.

<sup>12</sup> See Clifford Wallace, 'Globalization of Judicial Education' (2003) 28 *Yale Journal of International Law* 355, 356; Harold H. Koh, 'Globalization of Freedom' (2001) 26 *Yale Journal of International Law* 305.

<sup>13</sup> See Alex Y. Seita, 'Old Problems and New Paradigms: The Role of Market Forces in Transnational Violence' (1997) 60 *Albany Law Review* 635, 635-637.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

for, and exploiting natural resources, to the detriment of the local communities and their ecosystems.<sup>16</sup>

It could be seen that the saying that 'no nation or group of people is an island' remains correct, but, at the same time, such relationships, especially those between stronger and weaker societies, must be regulated for sustainability and mutual benefits.<sup>17</sup> This is especially important with respect to indigenous and local communities that have knowledge systems, social norms and values, person-property relations, and nature of resource holding, that differ markedly from the mainstream Western practices. It is with this understanding that 'peculiar situations should be dealt with peculiarly', that the issues surrounding indigenous communities and their knowledge systems are to be discussed in this work.

## 1. Indigenous Peoples

For an effective discussion of the issues involved here, it is appropriate to begin with the concept of 'indigenous peoples.' The development of the term 'indigenous peoples' as a concept in international law and states' practice has not been accompanied by any general agreement as to its meaning.<sup>18</sup> As the concept became increasingly important, international controversy as to its meaning and implications also acquired greater legal and political significance.<sup>19</sup>

In recent years, the debate over the meaning of the word 'peoples' has constituted an avoidable distraction that the international community could

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<sup>16</sup> See generally Michael S. Giaimo, 'Deforestation in Brazil: Domestic Political Imperative-Global Ecological Disaster' (1988) 18 *Environmental Law* 537.

<sup>17</sup> See generally, Mary Robinson, 'Shaping Globalization: The Role of Human Rights' (2003) 19 *American University International Law Review* 1.

<sup>18</sup> See Benedict Kingsbury, 'Indigenous Peoples in International Law: A Constructionist Approach to the Asian Controversy' (1998) 92 *American Journal of International Law* 414.

<sup>19</sup> *Ibid.*

well have done without.<sup>20</sup> For instance, several negotiations on indigenous issues, including the negotiations on the *Draft Declarations on the Rights of Indigenous Peoples 1994*, have been bogged down by the tussle on whether to use the term 'people' or 'peoples'.<sup>21</sup> There is no doubt that it is possible that these terms could be theoretically distinguished, however, the issue here appears to be the presumed political connotation of the term 'peoples,' which is said to be an acknowledgement of indigenous self determination.<sup>22</sup> Whatever be the case, it is doubtful whether any meaning that could be attached to the term 'people' or 'peoples' justifies the energy that has been dispensed in arguing over which term is more appropriate.

There have also been attempts to proffer suggestions as to the meaning of the terms 'peoples' and 'indigenous,' despite the fact that no international instruments dealing with indigenous peoples' interests attempt any such definition.<sup>23</sup> From the African perspective, Kiwanuka submits that the term 'peoples' could be used in two contexts: first, it could be used to portray the individual as 'part and parcel of a group,' since the rights of individuals could only be explained and justified by the rights of the community to which they belong.<sup>24</sup> The second possible context could be in a way that portrays the 'person' in contradistinction to the 'state.'<sup>25</sup> In this context, by separating 'the people' from 'the state,' the aspect of the people as a collectivity is further enhanced.<sup>26</sup> This, in turn, contributes in reserving a certain amount of political

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<sup>20</sup> See the Working Group on the Draft United Nations Declaration on the Rights of Indigenous Peoples 11<sup>th</sup> Session (Geneva 5-16 December 2005 and 30 January - 3<sup>rd</sup> February 2006 at

<<http://www.ishr.ch/About%20UN/Reports%20and%20Analysis/CHRWG/WGDDIP/WGDDIP-11thSessionFullReport.pdf>> at 8 July 2006.

<sup>21</sup> Ibid.

<sup>22</sup> See Mana Tagata, 'Draft Declaration on the Rights of Indigenous Peoples 1993: Background and Discussion on Key Issues' at

<<http://www.tpk.govt.nz/publications/docs/tangata/index.htm#tangata>> at 8 July 2006.

<sup>23</sup> The ILO Convention (No. 169) describes those that the Convention relates to without defining them conceptually.

<sup>24</sup> See Richard N. Kiwanuka, 'The Meaning of "People" in the African Charter of Human and Peoples' Rights' (1988) 82 *American Journal of International Law* 80, 82.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid.

and economic space for peoples as 'peoples.'<sup>27</sup> It suffices to say that in a case where the exercise of such 'personhood' has implications outside the states' boundaries, this will raise the difficult issue of the status and capacity of individuals in international law.<sup>28</sup>

The term 'indigenous' has also generated debates in contemporary indigenous discourse,<sup>29</sup> and some scholars are now inclined to discuss 'indigenous peoples' as a composite term. Sefa Dei describes 'indigenouness' as knowledge consciousness arising locally and in association with the long-term occupancy of a particular place.<sup>30</sup> This includes the traditional values, social norms and mental constructs that guide and regulate the groups' way of living.<sup>31</sup> Two things could be gleaned from the above summation: (i) it appears that the concept of 'peoples' within the indigenous context seeks to project and validate the social indices that have sustained and propagated the groups concerned. These indices could range from the nature of kinship, clanship structures, models of initiation to manhood, womanhood or marriage, birth and burial ceremonies, forms of property holding or other diverse factors; (ii) the notion of indigenouness on the other hand, seeks to clothe a target group with a form of cultural identity, by reconfirming the validity of any of the social indices that sustain the peoples concerned.

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<sup>27</sup> Ibid.

<sup>28</sup> A detailed discussion on this issue is beyond the scope of this work. For further discussions, see Ian Brownlie, *Principles of Public International Law* (5th ed. 1998) 66; Alexander Orakhelashvili, 'The Position of the Individual in International Law' (2001) 31 *California Western International Law Journal* 24.

<sup>29</sup> The word 'indigenous' has been defined as: 'originating or occurring naturally, native.' See Judy Pearsall (ed), *The New Oxford Dictionary of English* (1998) 930. On the different interpretations of the term 'indigenous', see Benedict Kingsbury, 'Indigenous Peoples in International Law: A Constructivist Approach to the Asian Controversy' (1998) 92 *American Journal of International Law* 414, 415, 446; See generally Douglas Sanders, 'Indigenous Peoples: Issues in Definition' (1999) 8 *International Journal of Cultural Property* 4. See also Stephen Brush, 'Whose Knowledge, Whose Genes, Whose Rights' in Stephen B. Brush and Doreen Stabinsky (eds), *Valuing Local Knowledge: Indigenous People and Intellectual Property Rights* (1996) 1, 5.

<sup>30</sup> George J. Sefa Dei, 'African Development: The Relevance and Implications of Indigenouness' in George J. Sefa Dei (ed), *Indigenous Knowledge in Global Contexts: Multiple Readings on Our World* (2000) 70, 71.

<sup>31</sup> Ibid.

The internal dynamics of each indigenous community is coloured by its social and cultural norms, which, in several cases, might vary from those in other local communities. In the same way, this dynamism is also reflected in local variations that characterize the practice of indigenous knowledge systems.

## 2. Indigenous Peoples and International Law

This section briefly discusses the recognition of indigenous peoples as a group in international law.<sup>32</sup> Issues concerning indigenous and local communities have become increasingly important due to their increasing recognition as 'groups' in international law.<sup>33</sup> However, there are still some difficulties in trying to articulate indigenous issues in the international context. There is, as yet, no consensus within the international communities on issues such as the definitions of indigenous peoples, and it has been suggested that such definitions should be 'sufficiently flexible to accommodate a range of justifications.'<sup>34</sup>

If there is an attempt to strictly define the concept of 'indigenous peoples,' then certain questions are raised: for instance, must an individual be of full indigenous ancestry to be a member of an indigenous group? How is indigenous ancestry determined? Is it by Western or other standards, or by the indigenous group's cultural standards?<sup>35</sup> The first point to note is that any determination that is carried out outside indigenous parameters will produce inconsistent results. This is because, more often than not, only members of indigenous and local communities are able to appreciate the internal dynamics of these communities. This explains why article 8 of the *Draft*

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<sup>32</sup> See generally, Chris Tennant, 'Indigenous Peoples, International Institutions, and International Legal Literature From 1945-1993' (1994) 16 *Human Rights Quarterly* 1.

<sup>33</sup> See generally, Noel Dyck (ed), *Indigenous Peoples and the Nation-State: 'Fourth World' Politics in Canada, Australia and Norway* (1985).

<sup>34</sup> See Kingsbury above n 18, 418.

<sup>35</sup> Jonathan Vuotto, 'Awas Tingni v. Nicaragua: International Precedent for Indigenous Land Rights?' (2004) 22 *Boston University International Law Journal* 219, 222.

*Declaration on the Rights of Indigenous Peoples 1994*<sup>36</sup> stipulates that indigenous peoples should define themselves, and even then, no acceptable definitions or criteria for such have emerged to the present.<sup>37</sup>

Article 1 of the International Labour Organization (ILO) *Convention Concerning Indigenous and Tribal Peoples in Independent Countries, 1989*<sup>38</sup> describes its target as:

(a) tribal peoples in independent countries whose social, cultural and economic conditions distinguish them from other sections of the national community, and whose status is regulated wholly or partially by their own customs or traditions or by special laws or regulations;

(b) peoples in independent countries who are regarded as indigenous on account of their descent from the populations which inhabited the country, or a geographical region to which the country belongs, at the time of conquest or colonization or the establishment of present state boundaries and who, irrespective of their legal status, retain some or all of their own social, economic, cultural and political institutions.

In a related respect, the U.N. Commission on Human Rights (the Commission) has conducted far-reaching studies on the rights, interests and position of indigenous peoples globally.<sup>39</sup> The Commission, through its Sub-commission on the Prevention of Discrimination and Protection of Minorities (the Sub-commission) has done extensive work in the area of the rights of indigenous peoples and other minorities.<sup>40</sup> In one of the Reports prepared for the Sub-commission with respect to indigenous peoples, Martinez Cobo

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<sup>36</sup> The U.N. *Draft Declaration on the Rights of Indigenous Peoples 1994*. For the text of the Declaration, see <<http://www.biopark.org/peru/indigrights.html>> at 8 July 2006.

<sup>37</sup> See generally Jon M. Van Dyke, Carmen Amore-Siah and Gerald Berkley-Coats, 'Self-Determination for Non-self Governing and for Indigenous Peoples: The Case of Guam and Hawaii' (1996) 18 *Hawaii Law Review* 623, 630-633.

<sup>38</sup> ILO *Convention (169) Concerning Indigenous and Tribal Peoples in Independent Countries, 1989* (entered into force 5 September 1989). For the text of the Convention, see <<http://www.unhchr.ch/html/menu3/b/62.htm>> at 4th September 2004.

<sup>39</sup> For the activities of the Commission, see <<http://www.unhchr.ch/html/menu2/2/chr.htm>> at 4th September 2004.

<sup>40</sup> See the Sub-Commission's website at <<http://www1.umn.edu/humanrts/demo/subcom.html>> 4th September 2004.



proffered a definition of 'indigenous peoples' that appears to cover the grounds. In his view, indigenous peoples are:

Those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the society now prevailing in those countries, or part of them. They form at present, non-dominant sectors of society and are determined to preserve, develop and transmit to future generations, their ancestral territories, and their ethnic identities, as the basis of their continued existence as peoples in accordance with their own cultural pattern, social institutions and legal systems.<sup>41</sup>

This definition emphasizes the history, identity and cultural links that exist between the historical and cultural emergence of indigenous peoples as a group, and the nature of their social relations and institutions. The importance of these factors is that they help to mould the determinant aspects of indigenous interactions *inter se*, and with others. Furthermore, it could be said that the interactions among these historical, cultural and institutional factors contribute to determining the activities necessary for the sustenance of indigenous people. In essence, they contribute to structuring the nature of indigenous knowledge.

The above comments are not meant to clothe the Cobo definition with a layer of infallibility, as it has been criticized for several reasons. According to Professor Wiessner, the Cobo definition is, among other things, underinclusive.<sup>42</sup> This is because its focus on 'historic continuity with pre-invasion and pre-colonial societies' ignores the fact that some societies, especially in Africa and Asia, were not invaded or colonized by Western powers, but are still oppressed by their own neighbours.<sup>43</sup> Furthermore, it has

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<sup>41</sup> Martinez Cobo, Study of the Problem of Discrimination Against Indigenous Populations, for the United Nations Sub-Commission on Prevention of Discrimination and Protection of Minorities, For the Cobo Report UN Document E/CN.4/Sub.2/1986/7 See <<http://www.iwgia.org/sw310.asp>> at 3 November 2004.

<sup>42</sup> See Siegfried Wiessner, 'Rights and Status of Indigenous Peoples: A Global Comparative and International Legal Analysis' (1999) 12 *Harvard Human Rights Journal* 57, 111.

<sup>43</sup> Ibid.

been submitted that the use of the phrase, 'to preserve ancestral territories,' could be used to exclude those local communities that have been forcefully removed from their ancestral homes.<sup>44</sup> There is no doubt that these are valid observations.

The attention that is focused on indigenous communities by the international community has come as a result of sustained agitation by Non-governmental organizations (NGOs) and Human Rights Groups. Traditionally, international law regulates the relations between states, with little or no attention paid to the acts of individuals,<sup>45</sup> corporations<sup>46</sup> or other non-state entities.<sup>47</sup> However, in recent years, there have been assertions that the subjects of international law can no longer be said to be states only.<sup>48</sup> There are arguments that individuals, groups and Non-governmental Organizations might have assumed a measure of 'personhood' (even if not a full subject status) in international law, although the situation is yet to crystallize to afford full rights. According to Brownlie:

There is no general rule that the individual cannot be a subject of international law, and in a particular context, he appears as a legal person in the international plane. At the same time, to classify the individual as a "subject" of the law is unhelpful, since this may seem to imply the existence of capacities, which do not exist, and does not avoid the task of distinguishing between the individual and other types of subjects.<sup>49</sup>

In recent years however, there appears to have been a further slight shift in paradigm. This is especially true in the fields of international human rights law, international humanitarian law and international criminal law. There is

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<sup>44</sup> Ibid.

<sup>45</sup> Malcolm N. Shaw, *International Law* (5<sup>th</sup> ed, 2003) 1.

<sup>46</sup> For the position on Multinational Corporations (MNCs), see Menno T. Kamminga and Sam Zia-Zarifi (eds), *Liability of Multinational Corporations in International Law* (2000) 75.

<sup>47</sup> For the position on non-state actors like rebel groups, see generally, Leslie C. Green, 'Enforcement of Law in International and Non-International Conflicts: The Way Ahead' (1996) 24 *Denver Journal of International Law and Policy* 285.

<sup>48</sup> See generally, Peter Halewood, 'Violence and the International Word' (1997) 60 *Albany Law Review* 565.

<sup>49</sup> See Brownlie, above n 28, 66.

now a greater tendency in apportioning personal responsibility to individuals for certain atrocities against humanity. For instance, the combined effect of articles 25(1) and 25 (3)(a) of the *Statute of the International Criminal Court, 1998* (ICC) is to impose personal liability on individuals for crimes covered by the Statute, and give the ICC jurisdiction over such individuals.<sup>50</sup> There are also *jus cogens* norms that create non-derogable obligations under customary international law that bind states and individuals alike. The norms that have crystallized without doubt as *jus cogens* norms include the prohibition against genocide and slavery.<sup>51</sup> However, it seems that these developments have not elevated individuals to the status where their personal claims could be heard by international tribunals.

In recent decades, issues concerning indigenous communities and minorities, have taken the centre stage internationally. This work is, however, concerned with specific indigenous issues, especially the manner of harnessing and protecting their knowledge systems.<sup>52</sup> The global attention being paid to indigenous issues has combined with other factors, including global commerce and the increased mobility of information, to bring out the importance of indigenous knowledge systems to the world economy. The issues of access and protection of these knowledge systems form the core of this work.

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<sup>50</sup> For the text of the *Statute of the International Criminal Court 1998*, see <<http://www.un.org/law/icc/>> at 14 September 2004. For further discussions on this subject, see Anthony Cassese, 'The Statute of the International Criminal Court: Some Preliminary Reflections' (1999) 10 *European Journal of International Law* 144.

<sup>51</sup> See Christopher A. Ford, 'Adjudicating Jus Cogens' (1994) 13 *Wisconsin International Law Journal* 145. But contrast Mark Weisburd, 'The Emptiness of the Jus Cogens As Illustrated By the War in Bosnia-Herzegovina' (1995) 17 *Michigan Journal of International Law* 1.

<sup>52</sup> For a discussion on minority rights, see Catherine Brolmann et al (eds), *Peoples and Minorities in International Law* (1993) 11-42.

### 3. Indigenous Knowledge Systems

Literally speaking, indigenous knowledge systems are the knowledge systems possessed by indigenous peoples.<sup>53</sup> The difficulties inherent in defining indigenous peoples were noted above. Any attempt to define indigenous knowledge is equally difficult. One reason for this is that the definition of indigenous knowledge includes materials that are tangible, as well as knowledge properly defined. For example, plant genetic resources are often classified as being part of indigenous knowledge systems, although perhaps what is really meant in such situations is the manner of their propagation. In all, the crucial point is that compartmentalizing indigenous knowledge systems into definable components always proves difficult, because the components are interconnected and complex.

Projecting indigenous knowledge as being that held by indigenous peoples might also be problematic, in the sense that persons who are not 'indigenous' now have access to aspects of such knowledge. The increased global interactions among peoples have, for diverse reasons, meant greater external interests regarding several aspects of indigenous knowledge. This trend has in turn led to an increased scholarly discourse on many issues surrounding indigenous knowledge, especially its protection,<sup>54</sup> preservation,<sup>55</sup> and manner of external access for purposes of potential exploitation.<sup>56</sup> Indigenous knowledge is, in a sense, unique or variable, in that it includes expressions of

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<sup>53</sup> In available literature, the terms 'indigenous knowledge' and 'traditional knowledge' are used interchangeably. See Gelvina Rodriguez-Stevenson, 'Trade Secrets: The Secrets to Protecting Indigenous Ethnobotanical (Medicinal) Knowledge' (2000) 32 *New York University Journal of International Law and Policy* 1119. But contrast Shubha Ghosh, 'The Traditional Terms of the Traditional Knowledge Debate' (2003) 23 *Northwestern Journal of International Law & Business* 589.

<sup>54</sup> See generally Charles R. McManis, 'Intellectual Property, Genetic Resources and Traditional Knowledge Protection: Thinking Globally, Acting Locally' (2003) 11 *Cardozo Journal of International & Comparative Law* 547.

<sup>55</sup> See Alexandra Kersey, 'The Nunavut Agreement: A Model for Preserving Indigenous Rights' (1994) 11 *Arizona Journal of International & Comparative Law* 429.

<sup>56</sup> See Keith Aoki, 'Weeds, Seeds, and Deeds: Recent Skirmishes in the Seed Wars' (2003) 11 *Cardozo Journal of International & Comparative Law* 247.

cultural values, folklore, beliefs, rituals, community laws, proverbs, dances, arts, myths, land and ecosystem management, and plant and animal breeding techniques,<sup>57</sup> among others. The transmission of this knowledge between individuals and communities and from one generation to another has been predominantly, though not exclusively, oral in nature.<sup>58</sup> This very flexible nature of indigenous knowledge exacerbates the problem in attempting to define the term.

In this work, the term 'indigenous knowledge systems' will be used interchangeable with 'indigenous knowledge' in a broad sense. Therefore, for the present purposes, indigenous knowledge will be used to mean the traditional practices, culture, knowledge, knowledge of flora and fauna, including the methods for their propagation, transmission and preservation by indigenous and local communities.<sup>59</sup> This definition is for functional purposes, because the nature, usage and preservation of different aspects of indigenous knowledge vary from one community to another. This is because the customs, laws and practices of the respective indigenous communities play pivotal roles in determining the content, usage patterns and preservation of indigenous knowledge.<sup>60</sup>

## 4. The Thesis

The thesis for this work is to attempt to determine the most effective and practical manner to protect and preserve indigenous knowledge systems and

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<sup>57</sup> See generally Walter A. Efron, 'Owning Enlightenment: Spirituality in the "New Age" Marketplace' (2003) 51 *Buffalo Law Review* 483.

<sup>58</sup> See Ruth L. Gana, 'Has Creativity Died in the Third World? Some Implications of the Internationalization of Intellectual Property' (1995) 24 *Denver Journal of International Law and Policy*, 109, 128.

<sup>59</sup> See Thomas J. Krumenacher, 'Protection for Indigenous Peoples and Their Traditional Knowledge: Would A Registry System Reduce the Misappropriation of Traditional Knowledge?' (2004) 8 *Marquette Intellectual Property Law Review* 143, 145.

<sup>60</sup> See generally, Peter H. Welsh, 'Repatriation and Cultural Preservation: Potent Objects, Potent Pasts' (1992) 25 *University of Michigan Journal of Law Reform* 837.

resources.<sup>61</sup> In doing this, several other sub-themes will have to be resolved, some of them substantive, while others are incidental, but necessary in order to give a more complete picture of the issues involved. For instance, while discussing the issue of protecting indigenous knowledge, there is also the need to determine the suitable and equitable way(s) to allow outsiders' access to indigenous knowledge and resources.

The 'internationalization' of indigenous issues has resulted in increased demand for access to indigenous knowledge systems and resources from non-indigenous entities. On their own part, however, indigenous communities are cautious about allowing any unfettered access to their knowledge systems and resources without effective mechanisms to protect their rights and interest in these resources. Apart from this, there is also the concern that the commodification of indigenous knowledge might devalue the significance of such systems, because some sacred or culturally-sensitive aspects may end up being commercialized. There is, then, the issue of biopiracy, concerning the uncompensated or illicit access to indigenous resources.

In view of these circumstances, indigenous and local communities now insist on effective mechanisms to better protect their knowledge systems and resources, while stipulating clear guidelines regarding access by external parties.<sup>62</sup> It is instructive that concerns for better protection of indigenous knowledge coincide with a period of heightened global interests in indigenous communities, knowledge systems, biodiversity, medicinal plants, food crops, and, in fact, indigenous resources as a whole.<sup>63</sup>

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<sup>61</sup> Substantive discussions on these issues are undertaken in chapters 6 and 7 of this work.

<sup>62</sup> See James O. Odek, 'Bio-Piracy: Creating Proprietary Rights in Plant Genetic Resources' (1994) 2 *Journal of Intellectual Property* 141.

<sup>63</sup> See James S. Anaya and Robert A. Williams, Jr., 'The Protection of Indigenous Peoples Rights Over Lands and Natural Resources Under the Inter-American Human Rights System' (2001) 14 *Harvard Human Rights Journal* 33, 36.

One question that might be asked is why there are still calls to find mechanisms to protect indigenous knowledge when there are several instruments already in existence for the purpose? On this issue, it appears that the position of indigenous communities could be summed-up into two parts: the first relates to where there is a perceived lack of protection by existing instruments. This is in cases where there is, as yet, no existing instrument(s) to protect the aspect of indigenous knowledge in question. The fallout of this scenario is that there have been alleged cases of over-exploitation or outright appropriation of indigenous knowledge and resources.<sup>64</sup> In this instance, it is alleged that local communities do not benefit from the exploitation or commercialization of such subject matters. In most cases, however, the issues are likely to be far more complex than this.

The second scenario is where the existing protective mechanism is considered ineffective to protect the relevant aspects of indigenous knowledge systems. This is apparently where the regime of intellectual property rights (IPRs) comes in. The issue as to whether IPRs mechanisms could be, and if so, how they could be used to protect indigenous knowledge will form a major part of this work. This has been a highly debated issue and continues to be so. The issues involved are fully discussed in chapter six of this work. In sum, however, from the indigenous perspective, one of the major concerns about IPRs mechanisms is that most of them are principally couched as tools to protect private or individual property rights, as against group or collective rights that abound within indigenous parlance. Secondly, and perhaps more importantly, IPRs confer exclusive rights on holders, and such powers of exclusion run contrary to indigenous collectivity of purpose.

Another issue of concern to local communities is that IPRs mechanisms are mainly geared towards protecting the commercial interests of the right holders, and several aspects of indigenous knowledge systems, while

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<sup>64</sup> See generally, Vandana Shiva, *Biopiracy: The Plunder of Nature and Knowledge* (1997) 5-18.

important, do not have commercial significance. For example, article 39(2)(b) of the *Agreement on Trade Related Aspects of Intellectual Property Rights* (TRIPS)<sup>65</sup> requires that any information that must be protected as trade secrets must have 'commercial value because it is secret.' Although some aspects of indigenous knowledge do have established commercial usages, some others, such as folklore and related expressions, are simply used for the social and cultural subsistence of the respective local communities. From the preceding observations, and considering that several aspects of indigenous knowledge systems have a substantial group component, questions persist about the appropriateness of IPRs mechanisms in protecting indigenous interests.<sup>66</sup>

In addition to the above, the complex area of biological diversity (biodiversity) also needs to be addressed. Article 8(j) of the *Convention on Biological Diversity*, 1992 (CBD) enjoins states parties, among other things, to respect, preserve and maintain knowledge systems and innovations of local communities, especially those 'embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity.' States parties are also required to ensure the equitable sharing of benefits arising from utilizing indigenous innovations and practices in the area of diversity.<sup>67</sup>

The *International Treaty on Plant Genetic Resources for Food and Agriculture* 2001 (ITPGR) also makes beneficial provisions that could assist in the protection of indigenous knowledge. Furthermore, like article 8(j) of the CBD, articles 10, 11 and 12 of the ITPGR provide for Multilateral Access and Benefit-sharing,<sup>68</sup> while article 12(4) provides that access shall be through a standard Material

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<sup>65</sup> The *Agreement on Trade Related Aspects of Intellectual Property Rights* (TRIPS) is s Annex IC of the Marrakesh Agreement Establishing the World Trade Organization (WTO) 1994. For the text of the TRIPS Agreement, see <[http://www.wto.org/english/tratop\\_e/trips\\_e/t\\_agm0\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm)> at 5th September 2004

<sup>66</sup> See Stephen D. Osborne, 'Protecting Tribal Stories: The Perils of Propertization' (2003/2004) 28 *American Indian Law Review* 203.

<sup>67</sup> See article 15 (7) of the CBD.

<sup>68</sup> Article 13(2)(d) provides for the sharing of commercial profits between the parties, that is, when any plant genetic resource(s) that has not been made publicly available is commercialized by any person based on an agreement with others within the 'source-state.'



Transfer Agreement (MTA).<sup>69</sup> The MTA is for the respective states to adopt and modify as they wish following the guidelines under ITPGR. The provisions relating to benefit-sharing are quite crucial being one area of persistent concern to indigenous peoples.<sup>70</sup> The ITPGR recognizes the contribution of indigenous and local communities, and article 9 enjoins the states to take measures to protect and promote traditional knowledge relevant to plant genetic resources. It also requires that mechanisms should be put in place to provide for farmers' rights to participate in benefit-sharing and decision making at the national level. Although it is left to each state to fashion its own legislation to bring these provisions into fruition locally, having these provisions in an international instrument is a positive step.

It could be seen that both the CBD and the ITPGR recognize 'indigenous and local communities' as groups capable of possessing knowledge in biological diversity. This seems to affirm the group or collective nature of indigenous resource holding. Whether such intention could be imputed to the treaties will be seen in later chapters in this work. Suffice it to say that it raises the final issue of this introductory aspect, which is the protection of indigenous interests as 'group interests.' In other words, since most proprietary and non-proprietary interests of indigenous peoples are group based, it seems proper that those interests should also be recognized, protected and asserted as 'group rights.'

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<sup>69</sup> See Daniel M. Putterman, 'Model Material Transfer Agreements for Equitable Biodiversity Prospecting' (1996) 7 *Colorado Journal of International Environmental Law & Policy* 149, 151-153. For an alternative view, see Steven M. Rubin and Standwood C. Fish, 'Biodiversity Prospecting: Using Innovative Contractual Provisions to Foster Ethnobotanical Knowledge, Technology, and Conservation' (1994) 5 *Colorado Journal of Environmental Law and Policy* 23.

<sup>70</sup> See Michael Woods, 'Food For Thought: The Biopiracy of Jasmine and Basmati Rice' (2002) 13 *Albany Law Journal of Science and Technology* 123. See further, Gerard Bodeker, 'Traditional Medical Knowledge, Intellectual Property Rights and Benefit Sharing' (2003) 11 *Cardozo Journal of International and Comparative Law* 785.

## 5. Group Rights

The collective nature of indigenous peoples' social and filial relationships has led to the recognition of indigenous peoples as a group in international law. The fact that indigenous peoples assert, and are treated more like collectives than distinct individuals in projecting their interests is trite. This is not to argue that individual rights are non-existent within indigenous communities, because they do exist. However, the projection of indigenous socio-cultural and proprietary relations is based largely on collective or communal rights rather than on individual rights. According to Réaume:<sup>71</sup>

An individual right is a claim, which a single human being is entitled to assert even if the exercise of that right makes things worse for everyone else. Therefore such a right can be claimed only with respect to goods or opportunities that can be individualized. That is, a good in which one's interest can be distinguished from, and possibly opposed to, that of others.<sup>72</sup>

The type of right described above portrays the individual as an isolated person<sup>73</sup> and in competition with the immediate environment. Traditionally, even when individual rights are exercised within indigenous communities, they do not have the same effect as described above. This is because the manner of indigenous social cohesion, which is traditionally built on some level of cultural homogeneity and kinship ties, do not allow for such exercise of rights that puts all others at a disadvantage.

A group has been defined as 'a number of people...that are located close together or are considered or classed together.'<sup>74</sup> Even though definitions are hardly sufficient when discussing indigenous issues, this definition properly encapsulates the concept of 'group' for the present purposes. The rights of

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<sup>71</sup> See Denise Réaume, 'Individuals, Groups and Rights to Public Goods' (1988) 38 *University of Toronto Law Journal* 1.

<sup>72</sup> *Ibid* 8.

<sup>73</sup> *Ibid*.

<sup>74</sup> See Judy Pearsall (ed), *The New Oxford Dictionary of English* (1998) 812.

indigenous groups will be articulated simply in the form of collective rights, as distinguished from those of mere 'collectives.'<sup>75</sup> For our purposes, group rights are simply used in contradistinction to individual rights. In some instances these group rights are called 'community'<sup>76</sup> or communal rights' and these are acceptable. The assertion of collective rights by indigenous communities has reflected in all aspects their well-being, extending to their means of subsistence, culture and folkways. All existing rights are therefore defined principally from the group perspective.

In this work, the overall intention is to make a single proposal: that due to the group nature of indigenous interests, any potential protective mechanism for any aspect of indigenous knowledge should be fashioned primarily on group rights. In this way, it would be possible to take care of some grey areas and subject matters that are difficult to be clothed with individual title or ownership. The mechanism proposed to do this is called 'Group Cultural and Resource Rights' (GCRR), which is discussed in chapter seven. The need for group rights has been partly captured by item 2.5 of the *Mataatua Declaration on the Cultural and Intellectual Property Rights of Indigenous Peoples 1993*,<sup>77</sup> which suggests the development of an additional cultural and IPRs regime incorporating the following:

- collective (as well as individual) ownership and origin;
- retroactive coverage of historical as well as contemporary works;

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<sup>75</sup> See Lukas H. Meyer, 'Transnational Autonomy: Responding to the Historical Injustice in the Case of the Saami and Roma Peoples' (2001) 8 *International Journal of Minority & Group Rights* 263, 270.

<sup>76</sup> See Will Kymlicka, 'Individual and Community Rights' in Judith Baker (ed), *Group Rights* (1994) 17.

<sup>77</sup> The *Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples 1993*, (Commission on Human Rights, Sub-Commission of Prevention of Discrimination and Protection of Minorities). For the text of the Declaration, see

<<http://aotearoa.wellington.net.nz/imp/mata.htm>> at 5th September 2004.

- protection against debasement of culturally significant items;
- cooperative rather than competitive framework;
- first beneficiaries to be the direct descendants of the traditional guardians of that knowledge; and
- multi-generational coverage span.<sup>78</sup>

## 6. Use of Some Terms

In this work, some terms will be used interchangeably, and therefore do not import any distinctions. The terms 'indigenous peoples,' 'indigenous and local communities,' and, 'local communities' are used synonymously. So also, are the terms 'indigenous knowledge system' and 'indigenous knowledge.' Therefore, any use of the variations of these terms in this work depends on the context of the discussions.

## 7. Structure of the Thesis

This work is structured into eight chapters. A brief overview of the major themes of the chapters is given below.

Chapter one discusses the 'Nature of the Indigenous Knowledge Systems.' The major issues here are the way that indigenous knowledge systems differ from other systems, and the significance of such dissimilarity. The issues discussed revolve around the nature and content indigenous knowledge, and how the 'innate peculiarities' of indigenous knowledge systems have

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<sup>78</sup> Ibid.

necessitated a better appreciation for their distinctiveness, in able to adopt effective protective systems.

Chapter two focuses on the issue of 'Property and Indigenous Knowledge Systems.' It discusses the similarities and differences in the conceptualization, attributes, entitlements and use of property in Western and indigenous societies, and how these features influence the choosing of protective mechanisms for indigenous such subject matters.<sup>79</sup>

Chapters three, four and five, constitute a loose trilogy, and their discussions dovetail into one another. While chapter three discusses the issue of 'Access to Biodiversity Resources: Bioprospecting,' chapter four deals with the issue of 'Prior Informed Consent and Indigenous Knowledge Systems' (PIC). In general, it is the present or absent of PIC during bioprospecting activities that gives rise to allegations of biopiracy. To conclude the discussions, chapter five deals with one of the fallouts of bioprospecting, which relates to the continued allegations of 'Biopiracy' being made by local communities. Therefore, these three chapters are particularly intertwined, as several aspects of their discussions have relevance for one another.

Chapter six discusses the place of intellectual property rights (IPRs) in the protection of indigenous knowledge systems. This chapter especially considers IPRs mechanisms, especially patents, copyrights, trademarks, and trade secrets, community databases, among others on. The suitability or otherwise of these mechanisms in protecting indigenous knowledge are considered in the light of the peculiar characteristics of indigenous knowledge systems, especially their inter-generational accumulation, and collective or group exploitation.

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<sup>79</sup> See generally, Rebecca Clements, 'Misconceptions of Culture: Native Peoples and Cultural Property under Canadian Law' (1991) 49 *University of Toronto Faculty of Law Review* 1.

Chapter seven discusses 'Group Cultural and Resource Rights (GCRR)' as a structure that would provide the basis for the protection of the collective resource rights of local communities. In the instance, an international instrument is proposed to create a framework for recognizing and protecting 'indigenous cultural and resource rights.' These rights are then to be protected by local communities via *sui generis* contractual agreements. These agreements are to implement the provisions of the international instrument domestically, and in doing so, will reflect the peculiar local circumstances of each local community.

Chapter eight presents the final conclusions.

# **CHAPTER ONE**

## **The Nature of Indigenous Knowledge Systems**

# Chapter One

## The Nature of Indigenous Knowledge Systems

It is important to understand that indigenous knowledge...is a vast and rich tradition that cannot be understood simply by means of a compilation of plants used and diseases treated. Indeed, it has been described as a coherent system linking social behaviour, supernatural beings, human physiology, and botanical observations.<sup>1</sup>

### 1. Introduction

This chapter examines the nature of indigenous knowledge systems. The major discussions will focus on the evolution, characteristics and content of the systems. In this instance, the word 'evolution' is used purposively, because, in discussing human-related activities, the term 'creation' is uncommon within indigenous parlance. This is especially true since indigenous communities consider themselves as part of their natural environment, and in that respect, are not greater than the constituent part of their environment.

In examining the content of indigenous knowledge systems, the major objective is to determine the various constituent elements of the systems as much as possible. These constituent elements will in turn be itemized and discussed in order to determine their respective compositions and their interconnectedness. The central themes that will be clear from the discussions in this chapter are the holism and complexity that characterize the nature of

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<sup>1</sup> See Paul A. Cox, 'Samoan Ethnopharmacology' (1990) 4 *Economic and Medicinal Plant Research* 123, in Michael J. Huft, 'Indigenous Peoples and Drugs Discovery Research: A Question of Intellectual Property Rights' (1995) 89 *Northwestern University Law Review* 1678, 1695.



indigenous systems, which, in turn, render their categorization into component parts quite superficial. This notwithstanding, the discussions in this chapter will establish that it is only a holistic approach to indigenous knowledge systems that can effectively bring out the attributes.

## **1.1. The 'Evolution' of Indigenous Knowledge Systems**

An attempt to discuss the evolution of indigenous knowledge systems will not be an easy task because of the inherent complexities to be dealt with. The present discussions on the issue will not be in the sense of human evolution, but to discuss the progressive manner through which aspects of indigenous knowledge systems are nurtured and expressed by respective indigenous and local communities. This also is not an easy task, considering that the origin of most indigenous knowledge, or aspects thereof, date back to antiquity. This implies that while the 'origin' of such knowledge systems might be embedded deep in the history of the concerned local communities, the evolutionary trends across generations is what is usually relevant to modify any such knowledge for current use.

Contextually, indigenous knowledge systems are diverse in both content and characteristics, although they serve reasonably uniform purposes for the respective local communities.<sup>2</sup> While certain aspects of these knowledge systems that are culture-based, for instance, could rightly be said to have evolved through periods of historical and social interactions among the different peoples, the evolution of knowledge of other aspects like preventive and curative medicines derived from plants and animals are more complicated.<sup>3</sup> This is because it is usually difficult, for example, to separate

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<sup>2</sup> See Laurie A. Whitt et al, 'Belonging to Land: Indigenous Knowledge Systems and the Natural World' (2001) 26 *Oklahoma City University Law Review* 701, 702 - 703.

<sup>3</sup> See Naomi Roht-Arriaza, 'Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities' (1996) 17 *Michigan Journal of International Law* 919, 937.

local medicinal knowledge from the material products from which it is derived, due to the inter-connectedness of humans and the surrounding environment within indigenous parlance.<sup>4</sup> Therefore the relationship between the source materials and the knowledge itself is such that the continued utility of the source materials depends on the availability of the knowledge of their use and *vice-versa*. Essentially, indigenous knowledge systems derive from multiple sources, including informal teachings, empirical observations, apprenticeships, and revelations<sup>5</sup> and these processes overlap and interact with one another.

Although different constituents of indigenous knowledge, for example, plant medicinal knowledge, could be found within many indigenous communities throughout the world, it is the general characterization of such knowledge, as against the specific variations in their practices across local communities that is important.<sup>6</sup> As a consequence, it is possible to characterize the general nature of medicinal knowledge without reference to any particular group or community, and such characterization will still be valid for most indigenous groups.<sup>7</sup> In this respect, such inter-community validity relates to the systemic diversity, inter-connectedness, and the general manner by which this knowledge is received, preserved and transmitted over succeeding generations. This explains why indigenous knowledge systems have been described as coherent systems that link social behaviour, supernatural beings, human physiology, and empirical observations.<sup>8</sup>

Empirically, indigenous knowledge is gained through careful study and observation over extended periods of time by the persons concerned.<sup>9</sup> The

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<sup>4</sup> See Whitt et al, above n 2, 704 -705.

<sup>5</sup> See Marlene B. Castellano, 'Updating Aboriginal Traditions of Knowledge' in George J.S. Dei, et al (eds), *Indigenous Knowledges in Global Context: Multiple Readings of Our World* (2000) 21, 23.

<sup>6</sup> See Huft, above n 1, 1695.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

<sup>9</sup> See Castellano above n 5, 23.

information gathered, in some cases largely unwritten, is retained through individual and group cognition and passed down to succeeding generations through the same process. The information is then interpreted and applied over time by the new recipients, with modifications where necessary, to deal with current situations.<sup>10</sup> It should be noted, however, that what is indigenous about 'indigenous knowledge systems' is not their antiquity, but the manner of acquisition, preservation and application of knowledge by indigenous peoples and local communities.<sup>11</sup> In other words, the social process of acquiring and sharing knowledge, which is unique to indigenous knowledge system, forms the crux of indigeneity.<sup>12</sup>

It should be noted that despite the homogeneity in characteristics described above, the manner of application and preservation of indigenous knowledge systems sometimes still varies to certain degrees from one local community to another. This is because across local communities, customs, customary laws, norms and practices still play pivotal roles in determining the finer procedures adopted by each community.<sup>13</sup> It is worthy to note, however, that notwithstanding any variations that might exist within respective communities, the general defining characteristics of indigenous knowledge systems still remain largely the same. As will be seen during the discussions on traditional medicine below, what is usually important is the holistic approach to the application and exploitation of such knowledge.

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<sup>10</sup> Ibid.

<sup>11</sup> See Marie Battiste and James Y. Henderson, *Protecting Indigenous Knowledge and Heritage: A Global Challenge* (2000) 46.

<sup>12</sup> Ibid.

<sup>13</sup> See generally, Peter H. Welsh, 'Repatriation and Cultural Preservation: Potent Objects, Potent Pasts' (1992) 25 *University of Michigan Journal of Law Reform* 837.

## 1.2. Characteristics of Indigenous Knowledge Systems

The major characteristics that define indigenous knowledge systems manifest in various ways, ranging from the manner the respective communities apply such knowledge systems to the ways they are preserved and transmitted. Due to the largely 'informal nature' of indigenous knowledge, and the variations that exist in their applications within local communities,<sup>14</sup> there are no specific criteria to gauge uniformity of characteristics across communities. However, the issue of formality of procedures relates only to assessment from Western perspectives, because, from indigenous perspectives, knowledge systems are meant to be used and preserved in peoples themselves. According to Cajete, indigenous thought classifies ecological phenomena based on characteristics observed through experience; such classifications are based on high degree of intuitive thought.<sup>15</sup>

From the above observations, it would be difficult, and some say, irrational, to evaluate indigenous knowledge systems, or their overall worldviews in absolute or universally homogenous terms.<sup>16</sup> This also makes any rigid compartmentalization of knowledge systems based on specific factors difficult, as any such rigidity would obscure the systems' ability for adaptation and change.<sup>17</sup> Having said that, there are still some general features that have been widely acknowledged as existing within the knowledge systems applicable in most indigenous and local communities. A few of these are considered below.

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<sup>14</sup> See Bradford S. Simon, 'Intellectual Property and Traditional Knowledge: A Psychological Approach to Conflicting Claims of Creativity in International Law' (2005) 20 *Berkeley Technology Law Journal* 1613, 1643-1644.

<sup>15</sup> See Gregory Cajete, 'Science: A Native American Perspective: A Culturally Based Science Education Curriculum' Unpublished Doctoral Dissertation, in Battiste and Henderson above n 11, 37.

<sup>16</sup> See Battiste and Henderson above n 11, 38.

<sup>17</sup> See the International Council for Science, 'Science and Traditional Knowledge' (Report from the ICSU Study Group on Science and Traditional Knowledge 2002) 5 <[http://www.icsu.org/Gestion/img/ICSU\\_DOC\\_DOWNLOAD/220\\_DD\\_FILE\\_Traitional\\_Knowledge\\_report.pdf](http://www.icsu.org/Gestion/img/ICSU_DOC_DOWNLOAD/220_DD_FILE_Traitional_Knowledge_report.pdf)> at 10 June 2006.

### 1.2.1. Holistic Knowledge

The holistic attribute of indigenous knowledge systems is perhaps the most pervasive, and from which most of the other attributes emanate.<sup>18</sup> There is a close interrelation among the different aspects of indigenous knowledge systems, such that sometimes it is virtually impossible to attempt to identify or create strict compartment(s).<sup>19</sup> The World Intellectual Property Organization (WIPO) confirms this fact in its assessment of the nature of indigenous knowledge,<sup>20</sup> on the basis that most of its elements are embedded in the community's way of life and deeply interconnected with each other.<sup>21</sup> The holistic quality of indigenous knowledge means that any attempt to isolate parts of it away from the environment that gave rise to it, is bound to lead to frustrating results.<sup>22</sup> This is because there are 'mutual relationships among all forces and forms in the natural world' of indigenous peoples.<sup>23</sup> While indigenous peoples exploit natural phenomena through the application of their diverse practical knowledge, in converse, natural phenomena and other forces of nature also affect the people themselves.<sup>24</sup> In all cases, therefore, knowledge is interpreted in a way that reflects the social needs and natural environment of the communities concerned.

An example of socially-structured manner of interpreting local knowledge could be found in the performance of pre-marital rites in some African local communities. In these communities, young women of marriageable age are

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<sup>18</sup> See Chidi Oguamanam, 'Localizing Intellectual Property in the Globalization Epoch: The Integration Indigenous Knowledge' (2004) 11 *Indiana Journal of Global Legal Studies* 135, 156.

<sup>19</sup> See Battiste and Henderson above n 11, 48.

<sup>20</sup> The WIPO observes that the spiritual and material elements of indigenous knowledge systems are intertwined and difficult to compartmentalize. See WIPO: *Traditional Knowledge and Intellectual Property: New Prospects and New Directions*, WIPO Magazine, May-June 2003, in Manuel Ruiz, Isabel Lapena and Susanna Clark, 'The Protection of Traditional Knowledge in Peru: A Comparative Perspective' (2004) 3 *Washington University Global Studies Law Review* 755, 780.

<sup>21</sup> Ibid.

<sup>22</sup> See Dei et al, above n 5, 30.

<sup>23</sup> See Battiste and Henderson above n 11, 42- 43.

<sup>24</sup> Ibid 43.

usually sent to the 'fattening room' before marriage, where they are fully prepared for marriage and taught all the possible ways to treat their future husbands.<sup>25</sup> The training ranges from acts of respect, dealings with in-laws, culinary lessons and tips on sexual behaviours, to other perspectives of the impending marriage. This formalized pattern might appear strange to persons from other backgrounds.<sup>26</sup> However, to be understood properly, such practices must be put into perspective with the other aspects of the societal culture and practices, and therefore viewed holistically.

The holistic nature of indigenous knowledge systems is embedded in the fact that over time, such knowledge systems have emerged from the processes of indigenous peoples' collective interactions and experiences with their immediate environment.<sup>27</sup> These interactions sometimes assume the form of informal 'kinship' with non-human living creatures within the environment. In this manner, relevant knowledge is gained through constant interactions and observations and then passed on to succeeding generations.<sup>28</sup> Therefore, it could be said that the holistic nature of indigenous knowledge is also an index for its collective or communal characteristic. Finally, the holistic nature of indigenous knowledge systems also contributes to their complexity and makes difficult the task of designing a regime of protection that responds comprehensively to such diverse characteristics.<sup>29</sup>

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<sup>25</sup> See Jessica Elam, 'A Cross-Cultural Comparison of Puberty Rites and Ceremonies for Females' at <<http://www.emory.edu/OXFORD/Publications/Review/puberty.html>> at 10 September 2004.

<sup>26</sup> For details of this in some African societies, see Cordelia Chukwu, 'Efik, Ibibio, Ibo in the Fattening Room' <[http://www.nigerdeltacongress.com/earticles/efik\\_ibibio\\_ibo\\_in\\_the\\_fattening.htm](http://www.nigerdeltacongress.com/earticles/efik_ibibio_ibo_in_the_fattening.htm)> at 10th September 2004.

<sup>27</sup> See Battiste and Henderson above n 8, 125.

<sup>28</sup> Ibid.

<sup>29</sup> See Sefa Dei et al, above n 5, 30-31.

### 1.2.2. Cumulative Knowledge

One of the distinctive characteristics of indigenous knowledge systems is the cumulative manner by which their many aspects are moulded.<sup>30</sup> An aspect of knowledge that has been handed down to a particular generation is sometimes regenerated, modified, or simply left intact. This is also a function of the holistic nature of the knowledge systems. It is therefore worthy to note that most indigenous communities rarely discard any aspect of knowledge in its entirety, although what is done depends on the needs of the current users of knowledge within any particular community. This process of accumulating knowledge cuts across generations, as new aspects of knowledge are integrated into the existing ones and improvements are made.<sup>31</sup> Therefore, what is meant by indigenous knowledge systems 'accumulating over generations' is the ability of the current users to build upon knowledge acquired from their ancestors and passing same on to future generations.<sup>32</sup> However, this does not preclude the transfer of knowledge between ageing and younger members of the same generation.<sup>33</sup>

Having said the above, it is necessary to distinguish between what could be called 'vertical' and 'horizontal' accumulations of knowledge. Before doing that, it must be noted that these modes of accumulating knowledge are not so clear-cut in actual practice, and there may be several other variations in modes of accumulation within local communities.

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<sup>30</sup> See Graham Dutfield, 'Trips-Related Aspects of Traditional Knowledge' (2001) 33 *Case Western Reserve Journal of International Law* 233, 241.

<sup>31</sup> See Miriam L. Quinn, 'Protection for Indigenous Knowledge: An International Law Analysis' (2001) 14 *St. Thomas Law Review* 287, 292.

<sup>32</sup> See generally, Eliana T. De Carvalho, 'Protection of Traditional Biodiversity-Related Knowledge: Analysis of Proposals for the Adoption of a Sui Generis System' (2003) 11 *Missouri Environmental Law and Policy Review* 38, 39-40.

<sup>33</sup> See Terri Janke, *Our Culture: Our Future: Report on Australian Indigenous Cultural and Intellectual Property* (1998) 9.

In the present context, the term 'vertical accumulation' of knowledge is used to refer to a situation where a body or an aspect(s) of knowledge is transmitted from one generation to a succeeding generation. This could be either inter or intra-generational transfer. In the latter instance the word 'generation' is used in a loose language. The 'vertical' transfer is used to emphasize the background history or antiquity that characterizes indigenous knowledge as a body of knowledge. This in turn underlines the fact that in most cases, the search for the ultimate source(s) of the various aspects of indigenous knowledge systems would be mired in guesswork into antiquity after a certain stage.<sup>34</sup>

As against 'vertical accumulation,' there is also a method of 'horizontal accumulation' of indigenous knowledge. This method is used to describe the fact that indigenous knowledge is made up of the synthesis of the skills and know-how of different individuals spanning generations. Over time, these skills and know-how are then turned into tools for the sustenance of the respective communities and are in some cases incapable of individual appropriation. In this respect and depending on the utility of such skills to the local communities concerned, what had started out as individual exertion might later be transformed into collective tools and resources. The principle of 'horizontal accumulation' underlies the preponderance of collective or communal traits with respect to most aspects of indigenous knowledge. It is also relevant for the acquisition of skills necessary for the subsistence of the respective local communities. For purposes of clarity these methods of knowledge acquisition are diagrammatically expressed in Figure 1 below.

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<sup>34</sup> See generally Carvalho, above n 32, 39-40.



**Figure 1**

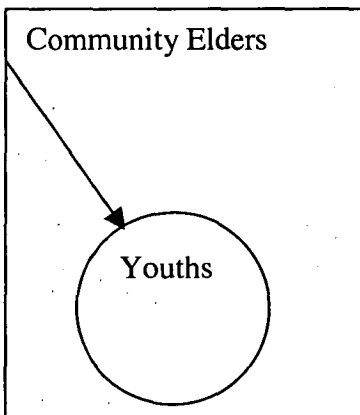
**TRANSMISSION OF KNOWLEDGE**

**A**

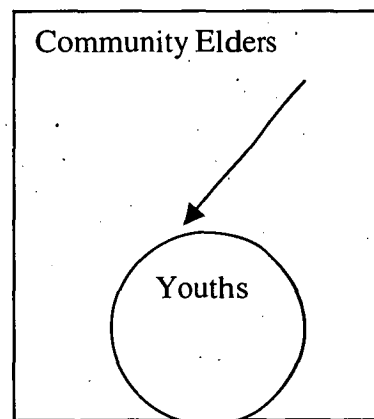
Cumulative Ancestral knowledge is passed down to communities B and C (usually several communities.)

**VERTICAL**

**B**

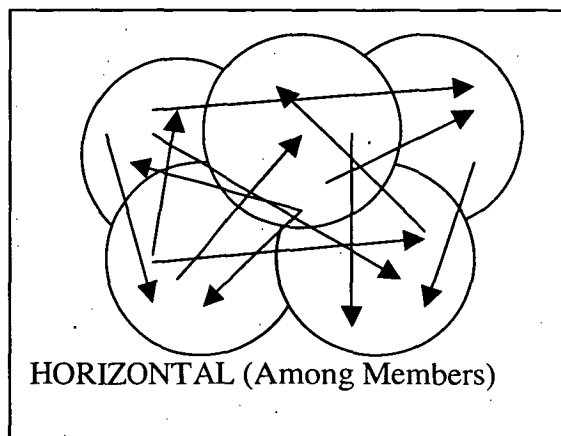


**C**



Inter-Communal Exchanges

**D**



### 1.2.3. Localized Knowledge

A direct effect of the cumulative nature of indigenous knowledge is that the knowledge is then localized. That is, the accumulated knowledge is primarily localized within the particular community, serving the needs and interests of its members. This does not mean that localized knowledge could not be shared with other communities, because such is usually the case. Once shared, it is left to the receiving community to determine whether to retain the knowledge intact or modify any aspect(s) to suit its own circumstances.

This factor of localization means that the knowledge systems that are utilized by particular indigenous communities also reflect the social conditions of such communities. According to Battiste and Henderson, the focus of indigenous knowledge systems is the web of relationships between humans, animals, plants, natural forces, spirits and land forms in a particular locality, as opposed to attempting to fashion out universal principles for their application.<sup>35</sup> However, where the applicable principles are found to be identical between communities, that fact could serve as added impetus for inter-community knowledge exchanges between such communities. This makes it easier for the receiving communities to exploit such knowledge for their own purposes without tangible modifications. Inter-community exchanges usually occur in areas of knowledge where the 'donor community' asserts speciality and the receiving community has limitations. In time each community uses and interprets its knowledge systems to reflect its peculiar social reality.<sup>36</sup> The extent to which the receiving community is able to interpret and adapt the received knowledge to its own needs determines the extent to which such knowledge would be ultimately localized.

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<sup>35</sup> See Battiste and Henderson, above n 11, 44.

<sup>36</sup> See George J. Sefa Dei, 'African Development: The Relevance and Implications of 'Indigenism'' in Sefa Dei et al, above n 5, 72.

It should be noted that the adaptations and interpretations referred to here deal with the social as much as with the physical and material conditions of the communities concerned. For instance, some indigenous communities like the Ashanti peoples of Ghana and the Rembau peoples of Malaysia, interpret their social environment to dictate that women play a great role in their genealogy, and therefore practice the matrilineal system of succession and inheritance.<sup>37</sup> This is a system where succession and inheritance go through the lineage of the mother, and children are usually brought up by their maternal uncles.<sup>38</sup> To preserve this system however, siblings are encouraged to marry their cousins and avoid marrying into non-matrilineal systems. Another area that is usually affected in this social balancing is that of kinship formation and maintenance, extending to the definition of entry into adulthood and marriage rites.<sup>39</sup> The close and often-compact social relations that characterize most indigenous societies are traceable in large part to the kinship rules. All these factors and social conditions help to mould the total body of knowledge existing within any particular indigenous community.

#### 1.2.4. Oral Transmission

The predominant modes of transmission of indigenous knowledge are through oral narrations and symbolic traditions,<sup>40</sup> among other diverse means. In this respect, there are instances where knowledge is transmitted

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<sup>37</sup> For a detailed discussion on the matrilineal system of inheritance and succession, see generally Stivens Maila, *Matriliney and Modernity: Sexual Politics and Social Change in Rural Malaysia* (1996). See also David M. Schneider and Kathleen Gough, *Matrilineal Kinship* (1974) 1-29.

<sup>38</sup> See generally, John Hartung, 'Matrilineal Inheritance: New Theory and Analysis' (1985) 8 *Behavioural and Brain Science* 661, 666 – 668.

<sup>39</sup> For a detailed study of kinships and other social organizational structures within indigenous societies, see generally, Paul Bohannan and John Middleton, *Kinship and Social Organization* (1968) 1-25; Claude Lévi-Strauss, *The Elementary Structures of Kinship* (James H. Bell, John R. von Sturmer and Rodney Needham, trans, first published 1949, 1967 ed.) [trans. of *Les Structures élémentaires de la Parenté*].

<sup>40</sup> See Battiste and Henderson above n 11, 48.

through signs engraved on rocks or through carvings, symbols, and sculptures. The choice of oral transmission as the major route for imparting this knowledge is apparently supportive of the fact that indigenous knowledge is based on continuously evolving traditions and narratives.<sup>41</sup> The sustenance of these traditions then depends on the continuous use,<sup>42</sup> and modification where necessary, of any particular aspect(s) of knowledge by the succeeding generations to serve their purposes. Another reason that has been proffered is that indigenous languages provide natural 'cognitive bonds' among local communities, and through such shared languages, it is easier to establish what constitutes proper actions across communities.<sup>43</sup>

There are other reasons for the prominence of oral transmission of indigenous knowledge. With this method, the bearer(s) of the knowledge could adopt a measure of 'censorship' in certain circumstances depending on specific factors. For instance, when passing on certain aspects of knowledge that implicate subjects relating to sex, murder, or other adult themes in the presence of children, the oral nature of transmission allows the person responsible to employ proverbs and adages that would be incomprehensible to younger audiences. In this way, young children would be able to pick-up the general lesson in any given topic but not any lurid connotation. Another reason is that with respect to aspects of knowledge involving traditional medicine and sorcery, the bearer of the knowledge could refuse to disclose such knowledge, or aspect thereof, to person(s) that could use it to engage in nefarious activities. In this manner, the pool of persons that could possess such knowledge is controlled, since any knowledge acquired could be used positively or negatively with dire consequences.<sup>44</sup> Therefore, these restrictions that could be imposed through the oral transmission of knowledge allow for

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<sup>41</sup> See Janke above n 33, 7.

<sup>42</sup> Ibid.

<sup>43</sup> See Battiste and Henderson above n 11, 49.

<sup>44</sup> See Castellano above n 5, 26.

prudence in accommodating the maturity of the learner, while helping to influence the ethical use of such knowledge.<sup>45</sup>

Finally, as was seen above, most indigenous societies maintain compact systems of filial and kinship relations.<sup>46</sup> This, in turn, makes the oral form of transmitting knowledge very effective, because it is transferred within and among families, clans and kindreds in mostly informal settings. The Australian Royal Commission into Aboriginal Deaths in Custody summed up this trend in part, as follows:

Younger generations learn from older generations by participation, observation or imitation. Much learning is unstructured and takes place in the social contexts amongst the kin. Certain types of knowledge, such as religious and ritual knowledge, are imparted at specific times and in an organised and managed way, often as part of initiation ceremonies.<sup>47</sup>

However, even though oral mode of transmission constitutes the predominant mode of imparting indigenous knowledge, the methodologies are not closed and other methods including the use of signs, gestures and marks are also very well utilized.<sup>48</sup>

### 1.2.5. Collective (Communal) Knowledge

As was noted above, most expressions of indigenous knowledge systems are usually accumulated over a continuous period of time by the members of the concerned local communities. It is also trite that the processes of knowledge accumulation occur both between and within succeeding generations.<sup>49</sup> In this

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<sup>45</sup> Ibid 27.

<sup>46</sup> See Lorie M. Graham, 'The Past Never Vanishes: A Contextual Critique of the Exiting Indian Family' (1998/1999) 23 *American Indian Law Review* 1, 40-41.

<sup>47</sup> See the (Report of the Royal Commission into Aboriginal Deaths in Custody), paragraph 16.1.1, 335, in Janke above n 33, 9.

<sup>48</sup> Battiste and Henderson, n 11, 48.

<sup>49</sup> See David R. Downes, 'How Intellectual Property Could Be a Tool to Protect Traditional Knowledge' (2000) 25 *Columbia Journal of Environmental Law* 253, 258.

way, the diverse interests that manifest in various aspects of indigenous knowledge systems are usually collective interests, which in turn afford collective rights to the members of the concerned communities. A good example of the manifestation of these collective rights is in the areas of folklore or cultural expressions.<sup>50</sup> The term 'folklore' is used here in a general sense to include all folktales, dances, songs, adages, proverbs, cultural ceremonies and so on.<sup>51</sup> The very complex nature of these components of folklore dictates why collectivity in expressing folklore activities is indispensable within communities.

The fact that indigenous knowledge systems are predominantly collective owes partly to the nature of their usage, which is mainly focused on the sustenance and subsistence of the members of the respective local communities. This is largely due to the holistic nature of indigenous knowledge systems, which, by that fact, offers no incentive to exclude other members of the community from being part of the knowledge moulding and sharing processes. This notwithstanding, there is no doubt that certain forms of localized commercial activities do exist even within such subsistence communities, however, the primary objective for the communities, which is the groups' welfare and subsistence, still remains the predominant consideration.<sup>52</sup>

The characteristics of indigenous knowledge systems described above are only generic descriptions, because some aspects of the knowledge systems are difficult to characterize. For instance, due to the complex nature of the

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<sup>50</sup> See generally, Silke Von Lewinski, 'The Protection of Folklore' (2003) 11 *Cardozo Journal of International & Comparative Law* 747.

<sup>51</sup> See Danielle Conway-Jones, 'Safeguarding Hawaiian Traditional Knowledge and Cultural Heritage: Supporting the Right to Self-Determination and Preventing the Commodification of Culture' (2005) 48 *Howard Law Journal* 737, 740fn. Also see generally, Daniel J. Gervais, 'Spiritual But Not Intellectual?: The Protection of Sacred Intangible Traditional Knowledge' (2003) 11 *Cardozo Journal of International and Comparative Law* 467.

<sup>52</sup> For a discussion on indigenous collective rights, see generally Stephen D. Osborne, 'Protecting Tribal Stories: The Perils of Propertization' (2003/2004) 28 *American Indian Law Review* 203.

relationships between indigenous peoples and their immediate environment, strict classification of material objects into tangible and intangible is sometimes difficult. Good examples for this are plant and animal genetic resources. Conventionally, there is physical aspect of these genetics resources and the intangible aspects. The intangible aspects involve the methods and skills for the propagation and nurturing of these resources. However, due to the holistic nature of indigenous knowledge, most indigenous and local communities do not make this distinction since knowledge of plants or animals would not exist without the physical subject matters. To these communities, the major objectives for knowledge acquisition are the composite uses of such knowledge, which are to perpetuate the present generation, and serve future generations. It is therefore possible that this complex nature of indigenous knowledge systems have played a part in their collective nature, because such inherent complexity presupposes that several individuals would have to play crucial roles in nurturing aspects of the knowledge systems.

The major characteristics of indigenous knowledge systems examined above would be better appreciated when taken together with the constituent elements. A key point is the primacy of collectivity of efforts in generating aspects of indigenous knowledge systems as against the individualistic nature of the mainstream Western knowledge system. This fact imports a measure of complexity into indigenous knowledge systems, and they should be interpreted holistically to be properly appreciated.

### **1.3. The Content of Indigenous Knowledge Systems**

In determining the content of indigenous knowledge systems, the definition of indigenous knowledge is of very tangential, if any value. The value of any such definition could, however, be used to highlight the difficulty inherent in

trying to categorize indigenous knowledge into clear-cut compartments.<sup>53</sup>

Indigenous knowledge has been defined as:

A body of knowledge associated with the long-term occupancy of a certain place. This knowledge refers to traditional norms and social values, as well as to mental constructs that guide, organize and regulate the peoples' way of living and making sense of their world. It is the sum of the experience and knowledge of a given social group and forms the basis of decision making in the face of challenges both familiar and unfamiliar.<sup>54</sup>

From the above definition, the first noticeable difficulty in any delineation of the content of indigenous knowledge is that the constituents are so interwoven that oftentimes they cannot be discussed in isolation.<sup>55</sup> Another trend that comes out of this definition is the interchange of terminologies in describing particular or all the components indigenous knowledge. For instance, Sand uses the term 'expressions of culture and traditional knowledge' to describe all components of indigenous knowledge systems,<sup>56</sup> while Janke uses 'traditional cultural expressions' to represent all the non-genetic components of indigenous knowledge, that is those relating to arts, music, designs and other expressions.<sup>57</sup> Furthermore, some scholars treat some aspects of indigenous knowledge, such as cultural expressions, cultural property and folklore interchangeably, while others treat them as relatively distinct components.<sup>58</sup>

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<sup>53</sup> See Stephen B. Brush, 'Whose Knowledge, Whose Genes, Whose Rights' in Stephen B. Brush and Doreen Stabinsky (eds), *Valuing Knowledge: Indigenous Peoples and Intellectual Property Rights* (1996) 4-6.

<sup>54</sup> See Dei et al, 'Introduction' in Dei et al, above n 5, 6.

<sup>55</sup> See generally Rosemary Coombe, 'Intellectual Property, Human Rights and Sovereignty: New Dilemmas in International Law Posed by the Recognition of Indigenous Knowledge and the Conservation of Biodiversity' (1998) 6 *Indiana Journal of Global Legal Studies* 59, 77.

<sup>56</sup> See Sabine Sand, 'Sui Generis Laws for the Protection of Indigenous Expressions of Culture and Traditional Knowledge' (2003) 22 *University of Queensland Law Journal* 188.

<sup>57</sup> See generally Janke, above n 33.

<sup>58</sup> See for instance, Stephen D. Osborne, 'Protecting Tribal Stories: The Perils of Propertization,' (2003/2004) 28 *American Indian Law Review* 203. See also Christine H. Farley, 'Protecting Folklore of Indigenous Peoples: Is Intellectual Property the Answer?' (1997) 30 *Connecticut Law Review* 1.



Determining the constituents of indigenous knowledge systems will help in achieving two results: the first is that it will show the inter-connected and complex nature of the knowledge systems, and the difficulty in their categorization. The second is that it will help any attempt to fashion out mechanisms to protect these systems. This is because one cannot effectively protect what cannot be precisely identified,<sup>59</sup> or rather, it would be much more difficult to do so.

In order to highlight the distinctiveness and inter-linkages of aspects of indigenous knowledge systems, some of their major components are discussed below. It must be noted that the present categorization is for purposes of convenience and is not exhaustive, as other categorizations are possible. In the present context, however, the three major components identified for discussion, are: (i) indigenous medicinal knowledge, (ii) expressions of folklore, and (iii) ecosystems/resource management. This is a broad categorization, and, as would be seen shortly, elements of one category could be found in the others.

### 1.3.1. Traditional Medicinal Knowledge

The health status of an individual becomes meaningful only in terms of his human environment, i.e. his social and cultural milieu. The lessons of the last decades have shown that social and economic changes have at least as much influence on health as medical interventions...<sup>60</sup>

Traditional medicinal knowledge (hereafter TMK)<sup>61</sup> is an aspect of indigenous knowledge systems that has attracted much global attention in recent years.<sup>62</sup>

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<sup>59</sup> See Lucy C. Moran, 'Intellectual Property Law Protection for Traditional and Sacred "Folklife Expressions"—Will Remedies Become Available to Cultural Authors and Communities?' (1998) 6 *University of Baltimore Intellectual Property Journal* 99, 101.

<sup>60</sup> See the Statement of Dr. Adeoye Lambo (Former Deputy Director-General of the World Health Organization, WHO) in Margaret M. Lock, *East Asian Medicine in Urban Japan: Varieties of Medical Experience* (1984) 7.

<sup>61</sup> The term 'indigenous medicinal knowledge' has also been used interchangeably with TMK in several instances. See for instance, Kristin A. Mattiske, 'Recognition of Indigenous Heritage in the Modern World: U.S. Legal Protection in Light of International Custom' (2002) 22

In the present context, TMK is used specifically to describe the medicinal knowledge of indigenous and local communities, and excludes other alternative therapies as practised by non-indigenous communities.<sup>63</sup> The discussions here are aimed at highlighting how the medicinal practices of local communities are blended into their general knowledge systems as a reflection of their holistic nature.

Defining what constitutes the entire gamut of TMK is of little utility for the present purposes. However, as a working description, TMK has been described as the 'health practices and methods of care that are based on health-illness beliefs and health care philosophy'.<sup>64</sup> For a better understanding of this philosophy, it suffices to say that indigenous concepts of health and illness are based on a community's value systems, beliefs and collective experiences.<sup>65</sup> In turn, indigenous belief systems are based on the notions of balance and holistic approach to life,<sup>66</sup> which, by implication, incorporates medicinal knowledge as part of the complete knowledge systems available to local communities.

The central theme underlying indigenous holistic approaches to health is that all humans strive to achieve balance in their lives, and this has to manifest in

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*Brooklyn Journal of International Law* 1105; Daniel J. Gervais, 'The Internationalization of Intellectual Property: New Challenges from the Very Old and the Very New' (2002) 12 *Fordham Intellectual Property, Media and Entertainment Law Journal* 929.

<sup>62</sup> See generally David Fidler, 'Neither Science Nor Shamans: Globalization of Markets and Health in Developing Countries' (1999) 7 *Indiana Journal of Global Legal Studies* 191.

<sup>63</sup> This clarification is necessary to avoid the dichotomy in meaning between the use of 'traditional and indigenous medicinal knowledge'. See, for instance, the World Intellectual Property Organization (WIPO), Draft Report on Fact Finding Missions on Intellectual Property and Traditional Knowledge 1998-1999 (2001) 13. See also, Peter J. Cohen, 'Science, Politics, and the Regulation of Dietary Supplements: It's Time to Repeal DSHEA' (2005) 31 *American Journal of Law and Medicine* 175; Lori B. Andrews, 'The Shadow Health Care System: Regulation of Alternative Health Care Providers' (1996) 32 *Houston Law Review* 1273.

<sup>64</sup> See Angeline D. Letendre, 'Aboriginal Traditional Medicine: Where Does it Fit?' (2002) 1 *Crossing Boundaries* 78, 80, citing B. Shestowski, Submission to the Royal Commission on Aboriginal Peoples: Traditional Aboriginal Medicine and Primary Health Care, Aboriginal Nurses Association of Canada, Winnipeg, Manitoba, Canada, 1993 at <[http://crossingboundaries.gsa.ualberta.ca/v01n02\\_07.pdf](http://crossingboundaries.gsa.ualberta.ca/v01n02_07.pdf)> at 15 July 2006.

<sup>65</sup> See Lock above n 60, 1.

<sup>66</sup> See Letendre above n 64, 81.

their physical, emotional, mental, and spiritual well-being for them to be healthy.<sup>67</sup> The physical and spiritual aspects of this approach to health help to explain the linkage between TMK and spirituality, which, in some cases, has been described as a relationship involving 'medicine, magic and religion.'<sup>68</sup> This is not necessarily so, because, in some cases, the reference to spirituality relates to the community's acknowledgement of venerated ancestral forces that are believed to guide the nurturing of such medicinal knowledge and its potency.<sup>69</sup>

In any case, it must be noted that holistic approach to health cannot be practiced in a vacuum, or in isolation from the surrounding social and cultural environments. This is because a good level of personal discipline is required to practice holism in health care, and this might explain why there are still health problems in some local communities around the world. The reason is that some negative social lifestyles within these local communities seem to negate the philosophy behind the holistic nature of their medicinal practices. Once this happens, the holistic approach to health breaks down and the health of the peoples increasingly deteriorates due to negative social choices. However, this has not detracted from the importance of traditional medicine to local communities, and increasingly, to non-indigenous entities.<sup>70</sup>

As a vital component of indigenous knowledge systems, TMK is deeply entrenched in the healthcare systems of local communities, and, in fact, forms a sort of reciprocal relationship with indigenous cultural practices.<sup>71</sup> In most local communities, dependence on this medicinal knowledge for health care

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<sup>67</sup> Ibid.

<sup>68</sup> See generally, W.H. R. Rivers, *Medicine, Magic and Religion: The Fitz Patrick Lectures Delivered Before the Royal College of Physicians of London in 1915 and 1916* (1924) 5-15.

<sup>69</sup> See generally Lori A. Colomeda and Eberhard R. Menzel, 'Medicine Keepers: Issues in Indigenous Health' at <<http://www.ldb.org/indheal.htm>> at 18 July 2006.

<sup>70</sup> See Fidler above n 62, 191-205.

<sup>71</sup> See Letendre above n 64, 79.

needs is almost total, even in the presence conventional medicinal practices.<sup>72</sup> As will be seen below, the international community has acknowledged this fact, and there are several initiatives to create functional synergy between TMK and conventional medicinal practices.<sup>73</sup> This development has, to an extent, reversed the misapprehensions regarding the place of TMK and its practitioners as being inconsequential in the global health delivery systems.<sup>74</sup> It also contributes to de-stigmatize this aspect of indigenous knowledge systems from being regarded as the sole domain of 'witch doctors.'<sup>75</sup>

In contemporary health care and policy discourse, the World Health Organization (WHO) has recognized the utility of TMK and has been championing its integration into the international and national health systems. For this purpose, the WHO has defined traditional medicine to mean:

Health practices, approaches, knowledge and beliefs incorporating plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination to treat, diagnose and prevent illnesses or maintain well-being.<sup>76</sup>

Even though the above definition has not expressly mentioned the holistic aspect of the traditional medicinal practices, it reflects some elements of traditional holism in health care. What is important, however, is the realization within the international community that traditional medicinal practices, even

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<sup>72</sup> See Gerard Bodeker, 'Traditional Health Systems and National Policy' at <[http://www.rccm.org.uk/static/Article\\_Gerry\\_Bodeker.aspx](http://www.rccm.org.uk/static/Article_Gerry_Bodeker.aspx)> at 16 July 2006.

<sup>73</sup> Ibid.

<sup>74</sup> See Una Maclean, *Magical Medicine: A Nigerian Case Study* (1974) 13.

<sup>75</sup> Ibid.

<sup>76</sup> See the World Health Organization (W.H.O.): 'Traditional Medicine' at <<http://www.who.int/mediacentre/factsheets/fs134/en/print.html>> at 15 July 2006.> See also the definition in Charles M. Good, *Ethnomedical Systems in Africa: Patterns of Traditional Medicine in Rural and Urban Kenya* (1987) 7.

when operating outside the structures of Western medicine, contribute immensely to global health delivery systems.<sup>77</sup>

In its assessment of traditional medicinal practices globally, the WHO affirms that in Africa and other developing countries, 'up to 80% of the population uses traditional medicine for primary health care.'<sup>78</sup> Added to this, it has been noted that in several developed countries, adaptations of traditional medicine, otherwise called 'alternative or complementary medicine,' are making constant in-roads, and presently contribute reasonably to the health care needs of the populations.<sup>79</sup>

As a consequence of the emerging global appeal of traditional medicinal practices, the WHO adopted the *Traditional Medicine Strategy* 2002-2005 (the Strategy) in 2002.<sup>80</sup> One of the major the objectives of the Strategy is to articulate the role of traditional medicine in national health care systems, including the opportunities and challenges that will confront such an initiative.<sup>81</sup> The major challenges in the area of development and national regulation of traditional medicines relate to issues on 'regulatory status, assessment of safety and efficacy, quality control, safety, among others.'<sup>82</sup> It appears that these challenges also confront the regulation of conventional medicinal practices, even though in this instance, there would be more established regulatory mechanisms due to several continued years of national regulation.

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<sup>77</sup> A clear manifestation of this is the establishment of a department for traditional medicine and public health within the WHO. See Lee Jong-Wook, 'Addressing Global Health: WHO Confronts AIDS, Drugs, and the Future of Health' (2004) *Harvard International Review* at <<http://hir.harvard.edu/articles/1274/>> at 15 July 2006.

<sup>78</sup> See the World Health Organization (W.H.O.): 'Traditional Medicine' at <<http://www.who.int/mediacentre/factsheets/fs134/en/print.html>> at 15 July 2006.

<sup>79</sup> Ibid. See Michael H. Cohen, 'Holistic Health Care: Including Alternative and Complementary Medicine in Insurance and Regulatory Schemes' (1996) 38 *Arizona Law Review* 83, 106-109 (advocating the inclusion of alternative medicine in health insurance cover in the U.S.)

<sup>80</sup> The WHO 'Traditional Medicine Strategy' 2002-2005. For the text of the Strategy, see <[http://whqlibdoc.who.int/hq/2002/WHO\\_EDM\\_TRM\\_2002.1.pdf](http://whqlibdoc.who.int/hq/2002/WHO_EDM_TRM_2002.1.pdf)> at 15 July 2006.

<sup>81</sup> Ibid.

<sup>82</sup> Ibid.

Despite the policy and regulatory challenges that confront traditional medicines, it has been acknowledged that their potential utility to global health care delivery systems is not in doubt.<sup>83</sup> With this realization in mind, the WHO, as the principal international organization saddled with regulating world health,<sup>84</sup> has passed several Resolutions over the last three decades consistently advocating the integration of TMK into mainstream health care systems. For instance, in 1977,<sup>85</sup> the 13<sup>th</sup> WHO World Health Assembly passed Resolution WHA 30.49, noting that, 'primary health care systems were not being fully implemented in many countries around the world', and that traditional medicine in developing countries 'had a heritage of a wide community acceptance'.<sup>86</sup> The Resolution therefore called on states' governments to give 'adequate and substantial importance regarding the utilization of these traditional systems, with appropriate regulations in order to best suit their national health systems.'<sup>87</sup>

The implication of this global acceptance of TMK is that traditional medical practitioners have also been recognized within several national health care systems. This realization is echoed in WHO Resolution WHA 56.31 of 2003, urging states to, among other things, 'recognize the role of ...traditional practitioners as one of the important resources of health care services...'<sup>88</sup> The Resolution also calls for the formulation and implementation of national

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<sup>83</sup> See Cohen above n 79.

<sup>84</sup> See articles 1 and 2 of the *Constitution of the World Health Organization* 1948. For the text of the Constitution, see <[http://whqlibdoc.who.int/hist/official\\_records/constitution.pdf](http://whqlibdoc.who.int/hist/official_records/constitution.pdf)> at 16 July 2006.

<sup>85</sup> There was also WHO Resolution WHA29.72 (1976), which acknowledged the immense potential available under TMK. See Chidi Oguamanam, 'Between Reality and Rhetoric: The Epistemic Schism in the Recognition of Traditional Medicine in International Law' (2003) 16 *St. Thomas Law Review* 59, 60fn.

<sup>86</sup> See Francisco Eduardo de Campos et al, 'Innovations in Human Resources Development: The Role of Community Health Workers' at <<http://www.globalhealthtrust.org/doc/abstracts/WG6/CamposFINAL.pdf>> at 22 July 2006.

<sup>87</sup> Ibid.

<sup>88</sup> See WHO Resolution WHA56.31 28, May 2003 at <[http://www.who.int/medicines/areas/traditional/trm\\_assembly\\_doc/en/index.html](http://www.who.int/medicines/areas/traditional/trm_assembly_doc/en/index.html)> at 22 July 2002.

policies 'in support of the proper traditional medicine, and its integration into national health-care systems.'<sup>89</sup>

It must be noted that the role of the WHO in attempting to internationalize the practice of traditional medicines has little, if anything, to do with the perception of TMK within local communities. In essence, the WHO simply realized what indigenous and local communities had known and practised for centuries. For instance, apart from the fact that traditional systems, such as the Chinese traditional medicine and Ayurveda systems in India, have existed for thousands of years, various developing countries have also relied on many other forms of traditional medicines long before the intervention of the WHO. This fact does not diminish the efforts of the WHO in this respect, especially in encouraging standardized regulatory procedures for traditional medicine, despite some disagreements with respect to its role in this area.<sup>90</sup>

### **a. Domestic Recognition of TMK**

Considering the noted importance of TMK in contemporary health care delivery systems,<sup>91</sup> several countries, especially developing ones, are continuing to formulate regulatory frameworks for integrating TMK into their domestic health care systems.<sup>92</sup> Even in countries where traditional medicinal practices have not been formally integrated into the national health care systems, traditional practices are still protected and allowed to exist simultaneously with conventional healthcare delivery systems.<sup>93</sup> In this way, the benefits accruable from TMK are allowed to flow seamlessly into the national health care systems.

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<sup>89</sup> Ibid.

<sup>90</sup> For the criticisms of this intervention by the WHO as an attempt to westernize the practice of TMK, see, Fidler above n 62, 195-200.

<sup>91</sup> See WHO 42<sup>nd</sup> World Health Assembly Resolution 42.43 of 1989 at <[http://www.sld.cu/galerias/pdf/sitios/mednat/medicina\\_tradicional\\_y\\_cuidados\\_de\\_la\\_salud.pdf](http://www.sld.cu/galerias/pdf/sitios/mednat/medicina_tradicional_y_cuidados_de_la_salud.pdf)> at 23 July 2006.

<sup>92</sup> See Fidler above n 62, 218.

<sup>93</sup> See the WHO Traditional Medicine Strategy above n 80.

It is not possible to discuss all the domestic legislative provisions dealing with TMK. Therefore, the situations in a few countries will be used to represent the attempts being made to integrate the regime of TMK into national health care systems. For the most part, this section will examine the situations in developing countries, because, as the WHO notes above, TMK is still the primary health care system in most developing countries. Even though some adaptations of TMK are spreading to developed countries without indigenous populations,<sup>94</sup> this section is largely devoted to the situations that affect indigenous and local communities.

In most developed countries with indigenous populations, traditional medicinal practices have not been integrated into the mainstream health care systems.<sup>95</sup> Despite this, as will be seen below, some developed countries have enacted specific laws for traditional medicinal practices within their territories, even where such practices are restricted to the indigenous communities. However, the situation appears to be different for practices relating to homeopathy, osteopathy, and related fields, usually characterized as complementary/alternative medicinal practices (CAM). These fields of medicine appear to be well entrenched in most developed countries and are well-regulated.

In Australia, there is no formal attempt to integrate indigenous medicinal practices into the national health care system, even though some local Aboriginal communities use several forms of traditional medicine to varying degrees.<sup>96</sup> The exception to this is the Northern Territory of Australia, where there are training programmes for Aboriginal health workers under the *Health*

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<sup>94</sup> See Kathleen M. Boozang, 'Western Medicine Opens the Door to Alternative Medicine' (1998) 24 *American Journal of Law and Medicine* 185.

<sup>95</sup> See the WHO Traditional Medicine Strategy above n 80.

<sup>96</sup> See Dayalan Devanesen, 'Traditional Aboriginal Medicine Practice in the Northern Territory' at

<[http://www.nt.gov.au/health/comm\\_health/abhealth\\_strategy/Traditional%20Aboriginal%20Medicine%20-%20Japan%20Paper.pdf](http://www.nt.gov.au/health/comm_health/abhealth_strategy/Traditional%20Aboriginal%20Medicine%20-%20Japan%20Paper.pdf)> at 20 July 2006.



*Practitioners and Allied Professionals Registration Act 1985*.<sup>97</sup> These workers act as a 'bridge' between traditional healers, indigenous communities, and conventional medical practitioners.<sup>98</sup> In this role, they relate Western practices through an indigenous framework, enabling indigenous patients to understand the processes being employed for their treatments.<sup>99</sup> They also relate indigenous conceptions of health and illness, and other beliefs back to conventional practitioners.<sup>100</sup> In this way a symbiotic relationship is established in the health care delivery system.

The popular practice in Australia is CAM, usually practised in the form of Chinese, Osteopathy, and Chiropractic medicinal systems.<sup>101</sup> The Australian Traditional Medicine Society (ATMS) is also more focused on CAM practices, as against the traditional medicinal practices of local communities.<sup>102</sup> The extensive reach of CAM in Australia is reflected in the establishment of schools that teach acupuncture and related disciplines, while different areas of Chinese medicine are taught in several universities.<sup>103</sup> Due to this prevalence of CAM around Australia, most states have enacted laws to regulate their practices.<sup>104</sup>

The situation in Australia is slightly different to some other developed countries with sizeable indigenous populations, such as the United States and

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<sup>97</sup> Ibid.

<sup>98</sup> Ibid.

<sup>99</sup> Ibid. It is also noted that the Northern Territory government employed some traditional healers in remote community clinics in the 1970's.

<sup>100</sup> Ibid.

<sup>101</sup> See the WHO 'Legal Status of Traditional Medicine and Complementary/Alternative Medicine: A Worldwide Review' (hereafter WHO Worldwide Review).

<<http://hinfo198.tempdomainname.com/medicinedocs/library.fcgi?e=d-0edmweb--00-1-0--010--4---0-0-101--1en-5000---50-about-0--01131-0011OZ2vJBrP83d906070000000044d43fec-0utfZz-8-0-0&a=d&c=edmweb&cl=CL1.1.11.3&d=>> at 16 July 20

<sup>102</sup> For details on the ATMS and its activities, see <<http://www.atms.com.au/>> at 16 July 2006.

<sup>103</sup> See WHO Worldwide Review above n 101, 147.

<sup>104</sup> See for instance, the *Chinese Medicine Registration Act 2000* (Vic), *Chiropractors Act 1991* (SA), *Chiropractors and Osteopaths Act 1991* (NSW), *Osteopaths Act 2001* (Qld) *Chiropractors and Osteopaths Registration Act 1983* (ACT), *Medical Act 1968* (WA).

Canada.<sup>105</sup> In these countries, while CAM practices are widespread and regulated in a similar manner to that in Australia, there are also specific laws, mostly state or provincial, that deal with traditional medicinal practices by indigenous populations. Generally, in North America, traditional medicine is commonly called 'Traditional Native American Medicine', or 'Aboriginal Medicine.'<sup>106</sup>

Using Canada as a specific example, the *Canada Health Act 1985*<sup>107</sup> regulates the practice of conventional medicine, while other areas of medicine are mostly provincially regulated.<sup>108</sup> For instance, it could be argued that Ontario's *Regulated Health Professions Act 1991*<sup>109</sup> has introduced traditional medicine into the national health systems by implication. Section 35(1) of the Act provides that its provisions do not apply to: (a) aboriginal healers providing traditional healing services to aboriginal persons or members of an aboriginal community, or (b) aboriginal midwives providing traditional midwifery services to aboriginal persons or members of an aboriginal community. The implication of these provisions is that traditional medicinal systems are recognized, they are not regulated by conventional medical standards.

In a related development, section 5(1) of the Yukon Territory's *Health Act 1990*,<sup>110</sup> recognizes aboriginal healing practices and strives 'to protect it as a viable alternative for seekers of health and healing services.' This implies an expression of confidence in the utility of TMK. As a consequence, traditional

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<sup>105</sup> Ibid 47 and 67.

<sup>106</sup> See 'Systems of Traditional Herbal Medicine' at <<http://www.traditionalmedicinals.com/?id=13#Native%20North%20American%20Herbal%20Medicine>> at 18 July 2006. See also Charlene Avery, 'Native American Medicine: Traditional Healing' (1991) *Journal of American Medical Association* 265.

<sup>107</sup> See the *Canada Health Act 1985* at <<http://lois.justice.gc.ca/en/C-6/>> at 18 July 2006.

<sup>108</sup> See the WHO Worldwide Review above n 101.

<sup>109</sup> See the *Ontario Regulated Health Professions Act 1991* at <[http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/91r18\\_e.htm](http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/91r18_e.htm)> at 18 July 2006.

<sup>110</sup> See the *Yukon Territory Health Act 1990* at <<http://www.gov.yk.ca/legislation/acts/health.pdf>> at 18 July 2006.

and Western medicinal practices are allowed to flourish simultaneously within the provincial health system.

In Singapore, the practice of traditional medicine is widespread and is recognized by the *Traditional Chinese Medicine Practitioners Act (No. 34) 2000* (hereafter TCMA).<sup>111</sup> In describing the nature of traditional medicinal practices, the TCMA uses the compound term 'traditional Chinese medicine,' to include activities relating to (a) acupuncture (b) the diagnosis, treatment, prevention or alleviation of any disease,<sup>112</sup> (c) the regulation of the functional states of the human body, or, (d) the processing of any herbal medicine, among others.<sup>113</sup>

Section 3 of the TCMA establishes the Traditional Chinese Medicine Practitioners Board (the Board), to perform diverse regulatory functions. Under section 4, these functions include the accreditation and registration<sup>114</sup> of traditional medicine practitioners,<sup>115</sup> dealing with ethical issues among registered practitioners, and approval of courses in traditional medicine for study in higher institutions.<sup>116</sup>

Finally sections 24 and 26 of the TCMA create offences where a person practices traditional medicine without the requisite registration,<sup>117</sup> or where such registration has been fraudulently obtained.<sup>118</sup>

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<sup>111</sup> The *Traditional Chinese Medicine Practitioners Act 2000*. For the text of the Act, see <[http://statutes.agc.gov.sg/non\\_version/html/homepage.html](http://statutes.agc.gov.sg/non_version/html/homepage.html)> at 18 July 2006. (entered into force 7 February 2001).

<sup>112</sup> Ibid.

<sup>113</sup> See section 2 of the Act.

<sup>114</sup> Under section 15, the Board may refuse to register any person when there is reason to believe that such a person does not meet the character or other specified requirements. Added to this, section 19 states the conditions under which the Board may cancel a practitioner's registration.

<sup>115</sup> Sections 11 and 12 of the Act require the Registrar to keep a detailed record of all practitioners of traditional medicine.

<sup>116</sup> Ibid.

<sup>117</sup> The penalty for this offence at the first instance is a maximum fine of \$25,000.00 (twenty-five thousand dollars) or 6 months imprisonment, or both. For a repeat offender the penalty doubles in every respect.

In the Philippines, traditional medicinal practices are recognized by the *Traditional and Alternative Medicine Act (TAMA)* 1997.<sup>119</sup> In its declaration of policy, the TAMA seeks, among other things, to 'improve the quality and delivery of health care ...through the development of traditional...health care and its integration into the national health care delivery system.'<sup>120</sup> Article 2, section 4(b) of the Act defines traditional medicine as 'the sum total of knowledge, skills and practice on health care, not necessarily explicable in the context of modern...framework, but recognized by the people...' Such medicinal practices are also aimed toward improving and maintaining community health and their interrelations based on culture, history, heritage, and consciousness.<sup>121</sup>

The importance of TMK to the national health care systems of the Philippines could be gleaned from the description of persons regarded as 'traditional healers' under the TAMA. It describes traditional healers as 'the relatively old, highly respected people with a profound knowledge of traditional remedies.'<sup>122</sup> The sentiment implicit in this description underscores the prime position occupied by TMK and the practitioners of traditional medicine in that country.

Sections 5 and 6 of the TAMA establish the Philippine Institute of Traditional and Alternative Health Care (the Institute), to, among other things, plan and carry out research into traditional and alternative medicine and their integration into the national health care systems. Other functions of the Institute include the organization and development of training programs for doctors, nurses, pharmacists and related professionals and students in the

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<sup>118</sup> For fraudulent registration the penalty is a fine not exceeding \$10,000.00 (ten thousand dollars), or a maximum term of 2 years imprisonment, or both.

<sup>119</sup> For the text of the TAMA 1997, see <<http://www.grain.org/brl/?docid=573&lawid=1495>> at 16 July 2006.

<sup>120</sup> See article 1, section 2 of the TAMA.

<sup>121</sup> See section 4(b) of the TAMA.

<sup>122</sup> See section 4(h) of the TAMA.

area of traditional medicine and alternative health care.<sup>123</sup> The Institute also formulates the code of ethics and standards for those in practice of traditional and alternative health care,<sup>124</sup> including the standards and guidelines for the manufacture and marketing of traditional health care products.<sup>125</sup>

As noted above, in India, the Ayurveda system of traditional medicine has existed for centuries, and its earliest form has been dated to the 5<sup>th</sup> century BC.<sup>126</sup> In terms of demonstrating the holistic nature of TMK, the Ayurveda, which means the 'science of life,'<sup>127</sup> presents a good example.<sup>128</sup> According to Bhushan et al, the principle of Ayurveda is that biological systems, such as humans, have elements that are coded into three forces, also known as the three doshas.<sup>129</sup> The interplay among these doshas determines the qualities and conditions of the individual.<sup>130</sup> A harmonious state of the doshas creates balance and health, while an imbalance manifests as a sign or symptom of disease.<sup>131</sup>

The importance of traditional medicine in India is further evidenced by the fact that over seventy percent of its rural inhabitants depend solely on this traditional system.<sup>132</sup> This is why the government pays close attention to the practice of traditional medicine, prompting effective recognition and regulation of the systems.

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<sup>123</sup> See sections 5 and 6 of TAMA.

<sup>124</sup> See section 6(i) of TAMA.

<sup>125</sup> See section 6(j) of TAMA. This is also fortified by section 13, which makes similar provisions.

<sup>126</sup> See the WHO Worldwide Review above n 101.

<sup>127</sup> Ibid. There are still other systems, notably the Siddha, Unani and the Yoga.

<sup>128</sup> See Bhushan Patwardhan et al, 'Ayurveda and Traditional Chinese Medicine: A Comparative Overview' at <<http://ecam.oxfordjournals.org/cgi/content/full/2/4/465>> at 16 July 2006.

<sup>129</sup> Ibid.

<sup>130</sup> Ibid.

<sup>131</sup> Ibid.

<sup>132</sup> See WHO Worldwide Review above n 101, 132.

In India, the central regulatory instrument for TMK is the *Indian Medicine Central Council Act (No 48) 1970*.<sup>133</sup> Section 2(e) of the Act defines Indian Medicine, as 'the system of Indian medicine commonly known as Ashtang Ayurveda, Siddha or Unani Tibb whether supplemented or not by...modern advances...' Section 3 of the Act establishes the 'Central Council' with the responsibility of administering the Act. The Council has the responsibilities to determine the qualifications, and to register and discipline practitioners of traditional medicine.<sup>134</sup>

It is prohibited for anyone to practice traditional medicine in India without the requisite training.<sup>135</sup> To maintain standards and ethics in the practice,<sup>136</sup> section 23 of the Act empowers the Council to establish and maintain a 'register of practitioners in separate part for each of the system...to be known as the Central Register of Indian Medicine.'<sup>137</sup>

Finally, the importance attached to the entrenched systems of traditional medicine in India is manifest in their study in several universities as advanced disciplines.<sup>138</sup>

In South Africa, the *Traditional Health Practitioners Act 2004*<sup>139</sup> recognizes and regulates the practice of traditional medicine. Under section 2 of the Act, its

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<sup>133</sup> See the *Indian Medicine Central Council Act (No. 48) 1970*. For the text of the Act, see <<http://www.ccimindia.org/1.htm>> at 22 July 2002. The Act is supplemented by several Regulations made in 1971, 1976, 1977, 1979 and 1982. These Regulations are also available on the present website.

<sup>134</sup> See sections 24 - 27 of the Act.

<sup>135</sup> See sections 14 and 17 of the Act.

<sup>136</sup> The full guidelines for practice etiquette are stipulated under the *Practitioners of Indian Medicine (Standards of Professional Conduct, Etiquette and Code of Ethics) Regulations 1982*. For the text for of the Regulations, see <[http://www.ccimindia.org/regulations\\_5.htm](http://www.ccimindia.org/regulations_5.htm)> at 22 July 2006.

<sup>137</sup> The Council established this Register by the *Central Register of Indian Medicine Regulations 1979*. For the text of the Regulations, see <[http://www.ccimindia.org/regulations\\_4.htm](http://www.ccimindia.org/regulations_4.htm)> at 22 July 2006.

<sup>138</sup> For instance, both the National Institute of Ayurveda and the National Institute of Post-graduate Research in Ayurveda, offer courses in this field of traditional medicine up to the doctoral level. See WHO Worldwide Review above n 101, 133.

<sup>139</sup> See the *Traditional Health Practitioners Act 2004*. For the text of the Act, see <<http://www.info.gov.za/gazette/acts/2004/a35-04.pdf>> at 22 July 2002.

major purpose is to establish the Traditional Health Practitioners Council (the Council), and to provide for the registration, training and practices of traditional health practitioners. Under section 1 of the Act, traditional practitioners are those that employ 'traditional philosophy' in their medicinal practices. In the context of the Act, traditional philosophy includes formal and informal indigenous African techniques, principles, beliefs, customs, and the uses of traditional medicines that have been communicated from the ancestors and generally used in traditional health practices.<sup>140</sup>

Under sections 5 and 6 of the Act, among other things, the Council has the responsibilities of promoting traditional health care, maintaining ethical standards and the quality of services, and ensuring that traditional health care services comply with universal health care standards. Under section 18 and 19 of the Act, a Registrar is to be responsible, among others, for maintaining a register of traditional health practitioners and students.<sup>141</sup> Section 22 empowers the minister, on the advice of the Council, to stipulate minimum qualifications for registration as traditional health care practitioners.<sup>142</sup>

It is not clear what the Act requires by stipulating that traditional health care has to comply with 'universal health care standards,' and the Act does not state the criteria for determining such standards. However, it is arguable that the intention is simply to ensure the safety of traditional practices, otherwise, such a requirement will defeat the very essence of recognizing traditional medicine as a distinct and complex health care system.

Finally, the provisions under the Act for the registration of traditional birth attendants and traditional surgeons<sup>143</sup> exemplify the crucial roles of traditional medicinal practitioners in South Africa. This is because these are

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<sup>140</sup> See section 1 of the Act.

<sup>141</sup> Section 23 of the Act stipulates the conditions for removing and restoring a person's name from the register.

<sup>142</sup> Section 43 of the Act creates offences for false representations or impersonations in obtaining registration. This is fortified by section 49 of the Act.

<sup>143</sup> See section 1 of the Act for the definitions of 'traditional birth attendants' and 'traditional surgeons.'

delicate areas of medical practice that require specialized training to undertake.

In Ecuador, there is a widespread use of traditional medicinal practices, and efforts are on-going to link traditional and conventional medicinal practices.<sup>144</sup> Ecuador is one of the first countries to recognize the practice of traditional medicine in its national Constitution. Article 44 of the *Constitution of Ecuador 1998*,<sup>145</sup> provides, among other things, that, the state 'will acknowledge, respect and promote the development of traditional... medicine, the practice of which will be regulated by law...'<sup>146</sup>

To emphasize the importance of traditional medicine, article 84 of the Constitution establishes collective rights of the state and local communities over the:

Systems, knowledge and practice of traditional medicine, including the right to the protection of ritual and ...plants, animals...and ecosystems of interests to the State from the point of view of traditional medicine.<sup>147</sup>

This provision seems to reserve the right for the state to assert its interests to the traditional medicinal systems of local communities. From the above provision, it is not clear how this scenario could be actualized. One possible option is for the state to rely on the collective rights over local TMK and practices in the event of any health emergency. In such an instance, the state could invoke the constitutional provision to mobilize these collective efforts to address the situation. It is also possible that the state could cooperate with

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<sup>144</sup> See WHO Worldwide Review above n 101, 56.

<sup>145</sup> See the *Constitution of Ecuador 1998*, at

<<http://pdpa.georgetown.edu/Constitutions/Ecuador/ecuador98.html>> at 22 July 2006.

<sup>146</sup> Ibid. Other countries such as Colombia, Nicaragua and the Philippines, also have constitutional provisions recognizing several aspect of indigenous rights. See James Anaya, Moira Gracey and Leonardo Alvarado, 'The Rights of the Pygmy People in the Republic of Congo: International Legal Context' at

<[http://www.rainforestfoundationuk.org/files/1%20Legal%20Context%20-%20IPLP%20AZ%202 .pdf](http://www.rainforestfoundationuk.org/files/1%20Legal%20Context%20-%20IPLP%20AZ%202.pdf)> 22 July 2006.

<sup>147</sup> Ibid.



local communities in any commercialization of aspects of TMK and then share in the proceeds.

The preceding discussions highlight the central position of TMK as an integral part of the health care systems of several countries, and an important component of indigenous knowledge systems. The fact that several local communities, in particular, and most developing countries, depend on TMK for primary health care is an added impetus for the further global recognition and protection of this knowledge system. There is also the fact that traditional medicines are being adapted for use in health care systems in several developed countries. These factors have also been recognized in several international instruments acknowledging the importance of TMK in global health care delivery systems. There is therefore the need to commence the formal process of integrating TMK into the health care delivery systems of every country.

Apart from the process of formal integration, an important point to note is that the provisions for TMK in various domestic instruments is, in themselves, not enough. Even though the provisions discussed above appear adequate as a starting point in the process of integration, it must be observed that it has not been easy to implement TMK alongside modern medical practices. An example is in South Africa, where the Health Minister, Manto Tshabalala-Msimang called on Sufferers of the Acquired Immune Deficiency Syndrome (AIDS) to try a melange of indigenous roots of beetroot, garlic, lemon and herbs for cure.<sup>148</sup> The Minister was roundly condemned for such a suggestion and labelled Dr. 'Beetroot' by the international press until the South African Ministry of Health withdrew the comment.<sup>149</sup> This type of scenario is commonplace in several developing countries, where there is a

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<sup>148</sup> See 'African Minister Ends Decade of Denial on AIDS' at <http://www.telegraph.co.uk/health/main.jhtml?view=DETAILS&grid=&xml=/health/2006/12/11/wsa10.xml> at 8 February 2007.

<sup>149</sup> See Branson See Red over Dr. Beetroots AIDS Cure Garbage' at <http://www.telegraph.co.uk/news/main.jhtml;jsessionid=DZ0JOYD0QHM4NQFIQMFCF GGAVCBQYIV0?xml=/news/2006/10/29/waids29.xml> at 8 February 2007.

constant tussle between modernity and traditional medicinal practices. In essence, while laudable, the process of integrating TMK into the mainstream medical systems of most states will be a long process. However, if the integration is achieved, it will enable the incorporation of the indigenous holistic approach to health care, with its benefits, into the conventional systems that is practiced in most states.

## **b. International Recognition of TMK**

Apart from the noted role of the WHO in bringing TMK to the centre-stage of global health care discourse, the international community also recognizes the value of TMK through several instruments, thereby underlying the need for its promotion and protection.

The *ILO Convention (No. 169) Concerning Indigenous and Tribal Peoples in Independent Countries 1989* (ILO Convention) is one of the first international instruments to give legal backing to the recognition of TMK. Professor Anaya describes the ILO Convention as 'international law's most concrete manifestation of the growing responsiveness of indigenous peoples' demands.'<sup>150</sup> This statement is correct to a large extent, barring some noted shortcomings of the ILO Convention.<sup>151</sup>

Part V of the Convention is captioned 'Social Security and Health'. Article 25(1) gives states the option of allowing indigenous communities to design and control their own health services. This ensures that these communities enjoy 'the highest attainable standards of physical and mental health.'<sup>152</sup> In

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<sup>150</sup> See James Anaya, *Indigenous Peoples in International Law* (1996) 47.

<sup>151</sup> For these shortcomings, see James Anaya, 'Divergent Discourses about International Law, Indigenous Peoples, and Rights Over Lands and Resources: Toward a Realist Trend' (2005) *Colorado Journal of International Environmental Law and Policy* 237, 246-252.

<sup>152</sup> See article 25(1) of the Convention.

this respect, the planning of health care services is to be done with the collaboration of indigenous communities, giving special attention to indigenous medicinal philosophy of preventive care and holistic healing practices.<sup>153</sup>

Apart from the above considerations, the Convention also requires that the relevant health services for local communities be community-based, and focus on primary health care, while maintaining effective links with other levels of national health care systems.<sup>154</sup> It is also a requirement that the geographic, social, and cultural conditions of indigenous and local communities be taken into consideration in planning their health services.<sup>155</sup> This is a recognition that the traditional health philosophy of local communities goes beyond medical intervention, and rather operates largely on holistic considerations that incorporate social, cultural and spiritual harmony.<sup>156</sup>

The importance of indigenous TMK is also recognized under the U.N. *Draft Declaration on the Rights of Indigenous Peoples 1994* (the Declaration).<sup>157</sup> Under article 23 of the Declaration, indigenous peoples have the right, among other things, to develop all health and social programmes affecting them, and to administer these programmes through their own institutions. Article 24 of the Declaration is more instructive on this issue. It guarantees indigenous peoples the right to 'their traditional medicines and health practices, including the right to the protection of vital medicinal plants, animals and minerals.' This provision reflects the fact that these are the main components of indigenous medicinal practices, especially those relating to herbal medicines, and their protection is vital to the traditional health systems.

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<sup>153</sup> See article 25(2) of the Convention.

<sup>154</sup> See article 25(3) of the Convention.

<sup>155</sup> See article 25(2) of the Convention.

<sup>156</sup> See Devanesen above n 96.

<sup>157</sup> See the U.N. *Draft Declaration on the Rights of Indigenous Peoples 1994*. For the text of the Declaration, see <<http://www1.umn.edu/humanrts/instree/declra.htm>> at 25 July 2006.

The *Convention of Biological Diversity 1992* (CBD)<sup>158</sup> makes no direct provisions in relation to TMK or related subjects. However, considering that traditional medicinal practices, especially herbal medicines, are based on indigenous peoples' philosophy and respect for the sanctity and interconnectedness of all living organisms, it is arguable that TMK falls within subject matters envisaged under article 8(j) of the CBD.<sup>159</sup> These are subject matters relating to 'traditional lifestyles relevant for the conservation and sustainable use of biological diversity.'<sup>160</sup> It is arguable that since several forms of biodiversity and genetic resources are required for traditional medicines, the roles that local communities play in conserving those resources for medicinal purposes amount to sustainable use of biodiversity resources.<sup>161</sup> This use also amounts to 'customary use of biological resources in accordance with traditional cultural practices' and is recognized and protected under article 10(c) of the CBD.

Another view is that since plant biodiversity accounts for over eighty-five percent of traditional medicinal resources, the CBD, being the principal regulatory instrument for biodiversity resources, is by implication regulating aspects of traditional medicine.<sup>162</sup> It is therefore left to the respective states to enact appropriate legislation to that effect.

Aside from the above instruments that could be described as 'global instruments,' there are important regional instruments that make provisions that recognize TMK. One of these instruments is the *African Model Legislation - for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources 2000* (African Model Law).<sup>163</sup>

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<sup>158</sup> See the *Convention on Biological Biodiversity 1992*. For the text of the Convention, see <<http://www.biodiv.org/convention/articles.asp>> at 25 July 2006.

<sup>159</sup> See Oguamanam above n 85, 74.

<sup>160</sup> Ibid.

<sup>161</sup> Ibid.

<sup>162</sup> Ibid.

<sup>163</sup> For the text of the African Model Law, see

<<http://www.grain.org/brl/?docid=798&lawid=2132>> at 8 February 2007. There is also the

The African Model Law adopts a very holistic approach to the issue of protecting the biodiversity resources and knowledge systems of local communities, while guaranteeing farmers' rights.<sup>164</sup> In this way, the Law treats biological resources and community knowledge to include all genetic resources, organisms, and general ecosystems and the cumulative knowledge of their uses.<sup>165</sup> Even though this is a Model Law whose provisions are not binding without being incorporated into states' laws, it makes some innovative and far-reaching provisions.

In sum, it could be seen that the recognition of the importance of TMK by the international community has manifested in several instruments. Even though the Declaration is not a binding instrument yet, its provisions help to affirm the direction that the international community is headed on any particular issue, in this case, with the regime of TMK. From the above, it becomes clear that different international instruments, directly and indirectly, recognize and seek to protect different aspects of traditional medicinal practices. However, the diverse nature of the components of indigenous knowledge systems makes it is difficult to itemize them for purposes of protection.

### 1.3.2. Expressions of Folklore

The full connotation of the term 'folklore' is broad, but it is usually considered a subset of 'culture' or 'cultural expressions.'<sup>166</sup> In some instances, the term folklore and cultural expressions are used interchangeably.<sup>167</sup> It is widely believed that British writer William John Thoms first uses the term 'folklore'

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*Pacific Regional Framework for the Protection of Traditional Knowledge and Expressions of Culture* 2002. To review the Framework, see [http://www.unesco.org/culture/copyright/folklore/html\\_eng/hanoi.shtml](http://www.unesco.org/culture/copyright/folklore/html_eng/hanoi.shtml) at 26 July 2006.

<sup>164</sup> See Part 1 (a-k) of the African Model Law.

<sup>165</sup> See Part 2 (Definitions and Scope) of the Model Law.

<sup>166</sup> See Silke von Lewinski, 'The Protection of Folklore' (2003) 11 *Cardozo Journal of International and Comparative Law* 747, 756-757.

<sup>167</sup> This is the trend adopted by the World Intellectual Property Organization (WIPO). See below n 169.

to describe a branch of culture in 1846.<sup>168</sup> At the time, the term was used to describe manners, customs, observations, superstitions, ballads, proverbs and so on, of any particular people.<sup>169</sup>

As an integral part of indigenous knowledge systems, it is noteworthy that most aspects of indigenous folklore are integrated into different aspects of indigenous life, ranging from formal dances, songs and initiation rituals, to informal adages and proverbs that assist in daily living.<sup>170</sup> This section will use 'folklore' as a generic term that incorporates traditional beliefs, customs, stories, songs and other related cultural practices of indigenous peoples and local communities.<sup>171</sup> The term also encompasses all animate and inanimate phenomena about human nature and the interactions between these, including marriage rites, inheritance, festival, proverbs, riddles, ballads, myths and legends.<sup>172</sup>

In essence, folkloric expressions could be classified into three categories: beliefs, customs and stories, and songs and poetry.<sup>173</sup> In this general classification, minor cultural expressions that manifest in different forms of community usages are classified as customs.<sup>174</sup> It could therefore be seen that there is flexibility in articulating folklore, and the practices could vary from one community to another. This is explained by the fact that the core ingredients of folklore revolve around certain types of beliefs, usages and customary practices within each community.

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<sup>168</sup> See P.V. Valsala and G. Kutty, *WIPO: National Experiences With the Protection of Expressions of Folklore/Traditional Cultural Expressions: India, Indonesia and Philippines* (2002) 1-5. <<http://www.wipo.int/tk/en/studies/cultural/expressions/study/kutty.pdf>> at 25 July 2005.

<sup>169</sup> Ibid 7. WIPO is presently discussing several Draft Provisions on Traditional Cultural Expressions/Folklore and Traditional Knowledge' see <[http://www.wipo.int/tk/en/consultations/draft\\_provisions/draft\\_provisions.html](http://www.wipo.int/tk/en/consultations/draft_provisions/draft_provisions.html)> at 28 July 2006.

<sup>170</sup> Ibid.

<sup>171</sup> See Charlotte S. Burne, *The Handbook of Folklore: Traditional Beliefs, Practices, Customs, Stories and Sayings* (1914) 1.

<sup>172</sup> Ibid.

<sup>173</sup> Ibid 4.

<sup>174</sup> Ibid.

Finally, one factor that is manifest is the inherent collective features of folklore, since some of its features, such as customs, are only exercised or enjoyed collectively. This collectivity also underscores the fact that separating the components of folklore into distinct parts might destroy some of its attributes and utility to the relevant communities. It seems therefore, as will be seen below, that most domestic legislative provisions that relate to folklore appreciate this fact and emphasize its intricacy and holistic nature.

### **a. Domestic Recognition of Folklore**

The collective attributes of folklore reflect in most domestic legislative provisions on the subject. For instance, article 53 of the *Ghana Copyright Law* defines folklore as:

All literary, artistic and scientific work belonging to the cultural heritage of Ghana which were created, preserved and developed by ethnic communities of Ghana or by unidentified Ghanaian authors, and any such works designated under this Law to be works of Ghanaian folklore.<sup>175</sup>

This definition leaves a leeway to the authorities responsible for folklore to add or subtract from the category of materials falling within the copyright domain. In a similar direction, article 28(5) of the *Nigeria Copyright Act 1990* defines folklore as:

A group-oriented and tradition-based creation of groups or individuals reflecting the expectation of the community as an adequate expression of its cultural and social identity, its standards and values as transmitted orally, by imitation or by other means.<sup>176</sup>

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<sup>175</sup> See *Ghana Copyright Law* (1985) in Paul Kuruk, 'Protecting Folklore Under Modern Intellectual Property Regimes: A Reappraisal of the Tensions Between Individual and Community Rights in Africa and the United States' (1999) 48 *American University Law Review* 769, 777, fn40.

<sup>176</sup> The section goes on to include 'other means' as folklore, poetry, riddles, dances and folk plays, sculptures, costumes handicrafts, pottery, among others. See the *Nigeria Copyright Act* (Cap. 68 1990 with amendments) <<http://www.nigeria-law.org/CopyrightAct.htm>> at 11 December 2004.

This latter definition is apparently meant to cover both the physical and oral elements of folklore, both in its creation and transmission.<sup>177</sup>

Several other African countries have adopted similar definitions in their copyright laws, and a few examples will suffice. Article 15 of the Congolese *Law on Copyrights and Neighbouring Rights*, defines folklore as:

All literary and artistic productions created on the national territory by authors presumed to be Congolese nationals or by Congolese ethnic communities, passed from generation to generation and constituting one of the basic elements of the national traditional cultural heritage.<sup>178</sup>

Similarly, under article 4 of the Burundian law on intellectual property, folklore is defined as 'all literary, artistic and scientific works created on the national territory by authors presumed to be nationals...passed from generation to generation...' <sup>179</sup> In Central African Republic, folklore is defined as, 'all literary and artistic productions created by the national communities, passed on from generation to generation and constituting one of the basic elements of the traditional cultural heritage.'<sup>180</sup>

On the scope of protection afforded by the above instruments, Professor Kuruk submits that the above African instruments suffer from certain problems: first, they fail to state the criteria for the size of social and cultural groups that could create a work of folklore.<sup>181</sup> Second, the instruments did not

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<sup>177</sup> Section 28(5) of the *Nigerian Copyright Act* goes on to include 'other means' of expressing folklore, including, folklore, poetry, riddles, dances and folk plays, sculptures, costumes handicrafts, pottery, carvings, and paintings, among others.

<sup>178</sup> See Kuruk above n 175, fn41 citing *Congolese Law on Copyright and Neighbouring Rights*, 1982.

<sup>179</sup> Ibid citing the *Burundian Decree-Law Regulating the Rights of Authors and Intellectual Property*, 1978.

<sup>180</sup> Ibid citing article 9 *Ordinance No. 85-002 on Copyright* (Central African Republic) 1985. It has been reported that article 10 of the *Indonesian Copyright Act 1963* (as amended) vests copyright over expressions of folklore in the state. See Valsala and Kutty, above n 168

<sup>181</sup> See Kuruk above n 175, 803, 804.



specify how widespread any cultural practice would be to be considered work of folklore.<sup>182</sup> Third, there is the problem of how to protect works of folklore that are available in several countries.<sup>183</sup> The above comments highlight the difficulties in protecting aspects of indigenous knowledge systems due to their complex nature. It appears that specialized mechanisms that will cater for this complexity will better protect the diverse aspects of the knowledge systems.

The discussions above differ from what is obtainable in most developed countries. For instance, the Australian *Copyright Act 1968* (Cth)<sup>184</sup> (as amended) and the Canadian *Copyright Act 1985*,<sup>185</sup> do not make express provisions for the protection of folklore.<sup>186</sup> It is, however, possible that some provisions of these instruments could be stretched to cover areas of folklore, even though this will cause several avoidable problems.<sup>187</sup> A point to note is that the perception of folklore by local communities, where it is regarded as an integral part of their existence, seem to differ from those in developed countries, where the historical and artistic aspects of folklore are emphasized. This seems to explain why any definite definition of expressions of folklore has been difficult.

There have been international efforts to recognize and protect expressions of folklore and related subject matters. In this respect, the WIPO has done extensive studies on the nature and requirements for the protection of

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<sup>182</sup> Ibid.

<sup>183</sup> Ibid. Professor Kuruk suggests several alternatives and notes that a regional solution rather than an international one could be the best alternative. See generally pp. 804-806, 848-849.

<sup>184</sup> For the text of the Act, see

<[http://www.austlii.edu.au/au/legis/cth/consol\\_act/ca1968133/](http://www.austlii.edu.au/au/legis/cth/consol_act/ca1968133/)> at 5 September 2006.

<sup>185</sup> For the text of the Act, see <<http://lois.justice.gc.ca/en/C-42/index.html>> at 5 September 2006.

<sup>186</sup> The United States' *Copyright Act 1976* (as amended) also does not have any such express provisions. For the text of the Act, see

<<http://www.law.cornell.edu/copyright/copyright.act.chapt1a.html#17usc102>>

<sup>187</sup> These problems will be dealt with below in discussing the Berne Convention.

folklore,<sup>188</sup> and what remains is the formulation of a comprehensive treaty for this subject area. However, as will be seen below, the task of formulating an international framework for folklore has not been easy.

## **b. International Recognition of Folklore**

Although there is no international treaty that is solely meant to protect folklore, some international efforts have been made in that direction. The first notable attempt was undertaken at the 1967 Stockholm Revision Conference of the *Berne Convention for the Protection of Literary and Artistic Works* (Berne Convention).<sup>189</sup> This time frame coincided with the attainment of independence by former colonies, which had also started to represent their own interests as developing countries at international fora.<sup>190</sup> The suggestion to include folklore in the Convention was raised and strongly supported by developing countries.<sup>191</sup>

The practicability of applying the provisions of the *Berne Convention* to folklore, (which does not involve identifiable authors), resulted in the failure to include 'works of folklore' among the non-exclusive list of literary and artistic works of article 2(1) of the Convention.<sup>192</sup> However, a compromise position that was agreed led to the addition of a new paragraph to article 15, which became article 15(4). The relevant portion is article 15 (4)(a), which provides as follows:

In the case of unpublished works where the identity of the author is unknown, but where there is every ground to presume that he is a national of a country of the Union, it shall be a matter for legislation in

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<sup>188</sup> For details on this, see generally WIPO: 'Traditional Cultural Expressions (Folklore)' <<http://www.wipo.int/tk/en/folklore/>> 11 December 2004.

<sup>189</sup> See Lewinski, above n 161, 751. The text of the *Berne Convention* 1886 is in *Butterworths Intellectual Property Collection* (2000) 619.

<sup>190</sup> Ibid.

<sup>191</sup> Ibid.

<sup>192</sup> Ibid 752.

that country to designate the competent authority which shall represent the author and shall be entitled to protect and enforce his rights in the countries of the Union.

Having seen the attributes of folklore above, it is doubtful whether this provision can be used effectively for its protection. The provision deals with 'unpublished works' and works with 'unknown authors' in a conjunctive manner, which implies that such works must be unpublished and their authors unknown. To use the term 'unpublished' in this context is problematic, because some major aspects of folklore do not relate to literary works or works of art. For instance, what is 'publication' in relation to aspects of folklore involving community dances and rituals? What does the term 'publication' imply in the context of the Convention? Does it imply paper publication or otherwise, and could the fact that such dances and rituals are performed in public be deemed 'publication'? It is doubtful whether there is any definitive answer to these questions.

Added to the above, on the issue that authors of works should be unknown, there is also the problem that some forms of folklore do have known authors, who are not specific individuals, but a group of individuals, kinship groups, families, or communities. Even though individual authors do exist in limited circumstances, such instances could not be generalized as part of criteria for recognition and protection.

Further international efforts aimed at recognizing expressions of folklore were intensified with UNESCO and WIPO collaborating to formulate the *Model Provisions for National Laws on the Protection of Expressions of Folklore Against illicit Exploitation and other Prejudicial Actions* (Model Law), in 1982.<sup>193</sup> This law is not binding, but a guide to individual states in formulating their respective national laws on folklore.

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<sup>193</sup> This Law was drafted by a select Committee of UNESCO and WIPO of Governmental Experts on the Intellectual Property Aspects of the Protection of Expressions of Folklore 1982. For the text of the Model Law, see <<http://users.ox.ac.uk/~wgtrr/modprovs.htm>> 24 July 2004.

The Model Law uses the term 'expressions of folklore,' which is a term preferred by WIPO to cover all aspects of folklore, as against 'folklore' simpliciter. Section 2 of the Model Law states that 'expressions of folklore' means productions consisting of characteristic elements of traditional artistic heritage developed and maintained by a particular community or individuals reflecting the traditional artistic expectations of such a community, especially: (i) verbal expressions, such as folk tales, folk poetry and riddles; (ii) musical expressions, such as folk songs and instrumental music; (iii) expressions by action, such as folk dances, plays and artistic forms or rituals whether or not reduced to a material form; and (iv) tangible expressions, such as: (a) productions of folk art, in particular, drawings, paintings, carvings, sculptures, pottery, terracotta, mosaic, woodwork, metalware, jewellery, basket weaving, needlework, textiles, carpets, costumes; (b) musical instruments; (c) architectural forms.<sup>194</sup>

According to Yamin and Posey, the Model Law uses the term 'expressions of folklore' and 'productions' in order to emphasize the peculiarity of folklore as against other subjects protected under conventional copyright laws.<sup>195</sup> However, two peculiar traits are noticeable from the above legislative definitions of 'folklore' and 'expressions of folklore': the first is that most of them contain an element of what could be called 'geographical nationalism,' whereby it is either the creators of the objects of folklore must be citizens of the country concerned, or that the creations took place within the national boundary. This is also reflected in section 1 of the Model Law, which requires the expressions of folklore to be 'developed and maintained' within the territory of the country concerned.

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<sup>194</sup> There is also the UNESCO-WIPO *Model Laws on Copyright for Developing Countries*, 1976 meant to assist developing countries to update their copyright laws.

<sup>195</sup> See Farhana Yamin and Darrell A. Posey, 'Indigenous Peoples, Biotechnology and Intellectual Property Rights' (1993) 2 *Review of European Community & International Environmental Law* 141, 142.

Article 15(4)(a) of the *Berne Convention* contains the same element emphasizing the 'nationality' of the authors. This seems to support the notion that folklore forms part of the 'cultural heritage' of any particular country and therefore originate therefrom. In this respect, it appears that even if aspects of folklore from a foreign country are protectable in another country, they remain 'essentially foreign' and cannot be considered part of the folklore of the protecting country. The second element is that although individual creations of folklore were protectable, most of the laws emphasized communal, group or aggregate interests. This trend recognizes the fact that, folklore, as with other aspects of indigenous knowledge systems, is largely a group or collective phenomenon.

It is quite instructive that most local laws discussed above use their copyright laws to provide for, and protect expressions of folklore. The cardinal question is whether in practical application, those definitions will fit into the conventional protection requirements under the copyright laws of respective countries, taking into account factors such as 'authorship' and 'originality,' which constitute the bedrock of copyright law? This question and related issues are discussed in chapter six of this work.

### **1.3.3. Indigenous Ecosystem (Resource) Management**

An integral and important component of indigenous knowledge systems is the ecosystem management knowledge of local communities. This is an aspect that deals with indigenous custodianship and guardianship of their lands, resource, and general ecosystems.<sup>196</sup> The issues involved are partly captured in 'Native Voices,' that, 'we indigenous people have been the guardians of Mother Earth until now...we want to find new allies, allies for the survival of

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<sup>196</sup> See Jordan E. Erdos, 'Biodiversity in the Amazon: Promoting Indigenous Stewardship as Policy' at <<http://www.planeta.com/planeta/98/0298amazon.html>> at 28 July 2006.

our planet.’<sup>197</sup> This is an aspect of indigenous knowledge that local communities have mastered for centuries, and have been generally recognized as such.<sup>198</sup>

Indigenous ecosystem management is probably the most important and expansive component of indigenous knowledge systems. It incorporates all native skills employed in framing environmental conservation techniques, farming methods, fisheries, forestry, and methods for utilizing and sustaining biodiversity and genetic resources.<sup>199</sup> It also incorporates indigenous land tenurial and management techniques,<sup>200</sup> and methods for plant replication, agriculture, animal husbandry and water management systems. Implicit in all of these is the manner of use of plant and animal genetic resources by local communities and the attendant issue of control over such resources. As will be seen in chapter three, the issue of control of resources, vis à vis the rights of states over these resources, creates complex situations for local communities as to the extent of their rights in this area.

It would be correct to say that indigenous ecosystem management is the bedrock of indigenous life. This is because all aspects of the ecosystem management are involved in varying degrees in the daily subsistence and sustenance of local communities. For instance, indigenous biodiversity and genetic resources are sustained through ecosystems and agricultural management methods, but are used extensively used in traditional medicine,

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<sup>197</sup> Marcos Terena, ‘Sing the Song of the Voice of the Forest’ in *Story Earth: Native Voices in the Environment* (1993) 31, 43, in Samara D. Anderson, ‘Colonialism Continues: A Comparative Analysis of United States and Brazil’s Exploitation of Indigenous Peoples’ Forest Resources’ (2003) 27 *Vermont Law Review* 959.

<sup>198</sup> See Erdos above n 196.

<sup>199</sup> It is instructive that there are courses in Indigenous Tropical Environmental Management at the Masters’ level at the James Cook University (JCU) and the Northern Territory University (NTU), both in Australia. See ‘Indigenous Unit for Tropical Environmental Management Course’ at

<[http://savanna.ntu.edu.au/publications/savanna\\_links14/indigenous\\_unit.html](http://savanna.ntu.edu.au/publications/savanna_links14/indigenous_unit.html)> at 30 July 2006.

<sup>200</sup> See Erdos above n 196.

rituals, and for everyday nutrition. It is therefore difficult to strictly separate these elements into water-tight categories.

Added to the above, as will be seen in the next chapter, indigenous concept of 'land', its use, and its management, encompass the concept of Western 'property' and its attributes, which implies that the concept of 'property' is also implicated in indigenous ecosystem management. This goes to affirm that, within indigenous parlance, ecosystem management is an extensive repertoire of diverse knowledge. This explains why it is difficult to precisely delineate indigenous concepts of 'ecosystem,' 'land,' or 'property,' without seemingly sounding contradictory in some respects. But there is actually no contradiction with these issues: several aspects of indigenous ecosystems are part of their concept of land, and indigenous land forms the greatest part of indigenous property, which, in turn, is considered an integral part of indigenous ecosystem. This interconnection is the reason why holistic approaches to knowledge and existence have been the hallmark of indigenous life.

An aspect of indigenous ecosystem management that has received much global acclaim is their environmental and land use practices. For instance, in several countries and within the international community, it has been realized that indigenous land use practices are sometimes more effective than conventional methods in preventing forest fires.<sup>201</sup> Indigenous land use methods have also been acclaimed to retard and reverse the degradation of the environment and loss of biodiversity resources.<sup>202</sup> For instance, since 2004,

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<sup>201</sup> For instance, the Australian Government has been liaising with indigenous groups of Cape York Peninsula in using local knowledge in areas of land and sea management, seaweed management, and fire management. See the 'Cape York Report Peninsula Card' at <<http://www.nrm.gov.au/state/qld/cape-york/publications/report-card/index.html>> at 22 July 2006.

<sup>202</sup> See Akin Omotayo and M.W. Musa, 'The Role of indigenous Land Classification and Management Practices in Sustaining land Use System in the Semi-Arid Zone of Nigeria' at <<http://www.haworthpress.com/store/ArticleAbstract.asp?sid=52WFQU6W4F679/AHRS60K8BD346H8NV0&ID=6817>> at 22 July 2006.

the Global Environmental Facility (GEF), a project managed by the World Bank and other partners, has spent millions of dollars on local communities around world. This initiative is to enable these communities, among other things, to 'promote the positive cultural values and land-use practices they have developed over centuries.'<sup>203</sup> In the opinion of Good,<sup>204</sup> the programme would be 'respecting the historical wisdoms of local communities and supporting their aspirations to sustainable livelihoods.'<sup>205</sup>

Apart from the above acknowledgement, states and the international communities severally recognize the importance of indigenous knowledge of ecosystem and traditional management techniques. It is necessary to consider the provisions of some domestic and international instruments to buttress this point. The instruments to be discussed below are representative and not exhaustive, since it is not possible to undertake a comprehensive global and domestic study on this issue within the confines of this work.

### **a. Domestic Recognition of Indigenous Ecosystem Management**

The manner of recognizing the importance of indigenous ecosystem management techniques varies in different countries. While some countries have formal legislative instruments for this purpose, in others, it is done informally as part of their environmental policies. In other countries still, the two methods are used simultaneously.<sup>206</sup> In all these cases, the defining elements are the recognition of the ecosystem management skills of local communities by the states concerned, and the willingness to delegate responsibility in environmental management to these communities.

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<sup>203</sup> See Global Environmental Facility <<http://www.gefweb.org/>> at 22 July 2006.

<sup>204</sup> See the Statement by Mr. Len Good, the Chief Executive Officer and Chairman of the GEF.

<sup>205</sup> Ibid.

<sup>206</sup> Australia and Canada are some of the countries that adopt this dual approach.



In Australia, the *Environmental Protection and Biodiversity Conservation (Amendment) Regulations (No. 2) 2005*, recognize the 'special knowledge held by indigenous persons about biological resources.'<sup>207</sup> Even though the Regulations do not specify the nature of the 'special knowledge,' it is arguable that, since the subject is on 'biodiversity conservation,' the Regulations are focused on indigenous knowledge of biodiversity management, which, as noted above, is part of indigenous ecosystem. In a related respect, in 2004, the Australian Government introduced the *Guidelines for Indigenous Participation in Natural Resources Management* (the Guidelines),<sup>208</sup> under the Regional Natural Resource Management (NRM) Scheme.<sup>209</sup> As a central theme to resource management, the Guidelines recognize that 'indigenous people throughout Australia have links to the land and sea that are historically, spiritually and culturally strong and unique.'<sup>210</sup> The Guidelines stress the need, therefore, to engage indigenous communities during the planning and implementation stages of Resource Management Schemes.<sup>211</sup>

There are several other similar initiatives across Australia.<sup>212</sup> For instance, indigenous ecosystem knowledge and management skills are presently being utilized in managing several Australian national parks, forests, and protected areas.<sup>213</sup> According to the Department of the Environment and National Heritage, 'the traditional knowledge that Aboriginal...Australians have used

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<sup>207</sup> See Part 8A.01 (c) of the Regulations. This is an amendment that improves on the 2000 Regulations. For the text of the *Environmental Protection and Biodiversity Conservation (Amendment) Regulations 2005*, see

<[http://www.comlaw.gov.au/ComLaw/Legislation/LegislativeInstrument1.nsf/0/9A4E98785AA5E3D2CA2570B9000F5A72/\\$file/MM10491A-050823EV.pdf](http://www.comlaw.gov.au/ComLaw/Legislation/LegislativeInstrument1.nsf/0/9A4E98785AA5E3D2CA2570B9000F5A72/$file/MM10491A-050823EV.pdf)> at 28 July 2006.

<sup>208</sup> For the text of the Guidelines, see

<<http://www.nrm.gov.au/indigenous/publications/participation-guidelines/index.html>> at 28 July 2006.

<sup>209</sup> For details on the NRM Scheme, see <<http://www.nrm.gov.au/>> at 28 July 2006.

<sup>210</sup> Ibid.

<sup>211</sup> Ibid.

<sup>212</sup> There is also collaboration between the Department of the Environment and Indigenous coastal communities for the management of Australia's coastal and marine resources. Also, the Great Barrier Reef management Authority collaborates with indigenous communities residing in the area for the management of the reef's resources. See below n 206.

<sup>213</sup> These include the Kakadu National Park, Uluru Kata-Tjuta National Park, and the Booderee National Park and Botanical Garden. See the Department of the Environment, below n 215.

to manage their lands for tens of thousands of years is now playing a significant role in conserving Australia's unique fauna and flora.'<sup>214</sup> This statement is sufficiently self explanatory.

In South Africa, the *National Environmental Management Act 1998* recognizes the role of indigenous communities in the scheme of environmental management. Section 2(2)(g) of the Act provides that decisions affecting the environment must 'take into account the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional...knowledge.' The full import of this provision is realized when it is read in conjunction with sections 2(2) and 2(4)(b) of the Act.

Section 2(2) provides that 'environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests.' On its part, section 2(4)(b) provides that 'environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated.' These provisions mirror the philosophy behind the indigenous holistic approach to ecosystem management discussed above, and highlight the importance attached to such an approach. Finally, section 24(c) requires that any decision affecting the environment must be assessed for its impact on the peoples' 'cultural heritage' before approval be granted. This also reflects the indigenous view on the linkage between all aspects of the environment, the people, and their ecosystems.<sup>215</sup>

In Bolivia, the *Supreme Decree No. 24,122* of 1995 established the National System of Protected Areas (SNAP) to effectively manage the country's

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<sup>214</sup> See the Department of the Environment and Heritage-Working with Indigenous Communities through Joint Management' <<http://www.deh.gov.au/indigenous/factsheets/joint.html#kakadu>> at 2 August 2006.

<sup>215</sup> See the Australian Government: 'Aboriginal Heritage' at <<http://www.cultureandrecreation.gov.au/articles/aboriginalheritage/>> 30 July 2006.

national parks and resources.<sup>216</sup> Specifically, this system is put in place to manage the Chaco National Park, which is the largest in the country.<sup>217</sup> In acknowledging the importance of the ecosystem management skills of the native Guarani-Izoceños, Chiquitano, and Ayoreo indigenous communities, the system of management was decentralized to benefit from the long tradition of conservation awareness of these communities.<sup>218</sup> It has been acknowledged that these communities have maintained their traditional social organization and close relationship with their natural environment for centuries, and have thereby gained immeasurable experiences.<sup>219</sup>

In Canada, there are several initiatives at the Federal and Provincial levels,<sup>220</sup> especially in the area of forest management, that have acknowledged and seek to utilize the ecosystem knowledge of indigenous communities. At the Federal level, one of the objectives of the *Canadian Environmental Assessment Act 1992* (CEAA)<sup>221</sup> is 'to promote communication and cooperation between responsible authorities and Aboriginal peoples with respect to environmental assessment.'<sup>222</sup> To this end, section 16(1) of the Act provides that 'community knowledge and aboriginal traditional knowledge may be considered in conducting an environmental assessment.' This is a progressive step in fostering a better recognition for the roles of indigenous and local communities in global environmental management.

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<sup>216</sup> See Case Study 1 Kaa-Iya Del Gran Chaco National Park and Integrated Management Area, Bolivia at <[http://www.iucn.org/bookstore/HTML-books/BP4%20-%20Indigenous and Traditional Peoples and Protected %20Areas/casestudy1.html](http://www.iucn.org/bookstore/HTML-books/BP4%20-%20Indigenous%20and%20Traditional%20Peoples%20and%20Protected%20Areas/casestudy1.html)> at 30 July 2006.

<sup>217</sup> Ibid.

<sup>218</sup> Ibid.

<sup>219</sup> Ibid. See also the Nature Conservancy: 'Parks in Peril-Protected Areas System' at <<http://parksinperil.org/howwework/operations/pasystems.html>> at 30 July 2006.

<sup>220</sup> See the National Aboriginal Forest Association (NAFA): 'Aboriginal-Forest Sector Partnerships: Lessons for the Future' at <<http://www.nafaforestry.org/nafaio2/nafaio2.php#2.3>> at 2 August 2006.

<sup>221</sup> For the text of the Act, see <<http://lois.justice.gc.ca/en/C-15.2/text.html>> at 2 August 2006.

<sup>222</sup> See section 4 (1)(b.3) of the Act.

Apart from the above, Canada also has the *National Forestry Strategy* 2003-2008 (NFS)<sup>223</sup> and the *Certification Systems for Sustainable Forest Management* (CSSFM).<sup>224</sup> These are intended to harness the skills of indigenous and local communities in the area of forestry and ecosystem management, while also allowing them to benefit from such management cooperation. As already noted, there are also several similar initiatives at the provincial levels.<sup>225</sup>

In several other countries, the recognition of indigenous eco-management skills is also growing, both in their importance and popularity. The trend is presently referred to as 'ecosystem-based management,' and is spreading across the globe rapidly as the new model for achieving environmental sustainability.<sup>226</sup> In sum, ecosystem-based management incorporates the principle of aligning 'ecosystem health, integrity, or sustainability as the primary management goal while expecting human economic activities to be redesigned to be as harmonious with natural flows and cycles as possible.'<sup>227</sup> This implies, without doubt, that the ecosystem approach is a reiteration of indigenous philosophy regarding resource use and management.

## **b. International Recognition of Indigenous Ecosystem Management**

Over the years, the international community has come to realize the importance of indigenous resource management skills. In this respect, several

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<sup>223</sup> For the text of the Strategy, see <<http://nfsf.forestry.ca/strategies/strategy5.html#i>> at 2 August 2006.

<sup>224</sup> See NAFA above n 221.

<sup>225</sup> In Ontario these initiatives are found in the *Crown Forestry Sustainability Act* 1994. For the text of the Act, see <[http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/94c25\\_e.htm](http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/94c25_e.htm)> at 2 August 2006. In Saskatchewan, the *Forestry Resources Management Act* 1996 is relevant. In British Columbia, the Ministry of Forests has formulated the *Aboriginal Rights and Titles Policy* 1999, among several other provincial initiatives. For all these, see NAFA above n 221.

<sup>226</sup> See the Nature Conservancy: 'Ecosystem Management in Great Bear Rainforest: Preserving Landscapes Livelihoods'

<<http://www.nature.org/wherewework/northamerica/canada/work/art16907.html>> at 30 July 2006.

<sup>227</sup> See Jack Manno, 'The Ecological Dynamics of Environmental Law and Policy' (2004) 31 *Boston College Environmental Affairs Law Review* 607, 615.

international instruments and initiatives seek to get local communities involved in diverse fora with respect to environmental management or related subject areas.

Article 3 of the U.N. *Convention to Combat Desertification, Particularly in Africa* 1994<sup>228</sup> mandates States Parties to, among other things, ensure that 'decisions on the design and implementation of programmes to combat desertification...are taken with the participation...of local communities.'<sup>229</sup> In a related development, Principle 22 of the *Rio Declaration on Environment and Development* 1992, recognizes that 'indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices.'<sup>230</sup>

Another relevant instrument is the *Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all Types of Forests* 1992 (the Principles).<sup>231</sup> Paragraph 12(d) of the Principles provides, among other things, that relevant indigenous and local knowledge relating to 'the conservation and sustainable development of forests should, ...be recognized, respected, recorded, developed and, as appropriate, introduced in the implementation of programmes.'

Chapter 26 of Agenda 21, 1992 (the Agenda)<sup>232</sup> is dedicated to 'Recognizing and Strengthening the Role of Indigenous Peoples and their Communities.'

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<sup>228</sup> See the U.N. *Convention to Combat Desertification, Particularly in Africa* 1994. (entered into force 26 December 1996). For the text of the Convention, see <<http://www.unccd.int/convention/text/convention.php?annexNo=-1>> 30 July 2006.

<sup>229</sup> Also article 8(2)(c) of Annex 1 'Regional Implementation Annex for Africa,' reiterates the commitment to this provision.

<sup>230</sup> See the *Rio Declaration on Environment and Development* 1992, <<http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm>> at 3 August 2006

<sup>231</sup> For the text of the Principles, see

<<http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm>> at 3 August 2006.

<sup>232</sup> See Agenda 21 of the U.N. Commission on Environment and Sustainable Development 1992 at

<<http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter26.htm>> at 3 August 2006.

Among its several provisions, Paragraph 26.1 of the Agenda recognizes that indigenous and local communities globally 'have developed over many generations a holistic traditional scientific knowledge of their lands, natural resources and environment.' Consequently, it requests that considering the 'interrelationship between the natural environment and its sustainable development and the cultural, social, economic and physical well-being of indigenous people', national and international initiatives to 'implement environmentally sound and sustainable development should recognize, accommodate, promote and strengthen the role of indigenous people and their communities.'

It is clear that the importance of the traditional ecosystem management skills of local communities is now globally recognized. This fact has far-reaching implications for local communities: firstly, it has changed the perception of indigenous practices regarding biodiversity and ecology from being regarded as backward or primitive 'science.'<sup>233</sup> Secondly, and perhaps more importantly, it is gradually changing the dynamics in the balance of bargaining power between indigenous and local communities and their respective governments in relation to resource management. This is because, when entering into any negotiations with their governments or other entities, such recognition implies that local communities would be operating from stronger negotiating platforms. This fact will also have strong implications for indigenous participation in their own right as 'peoples' at the international level. It is, therefore, an added impetus regarding efforts to formulate effective protective mechanisms for indigenous knowledge systems.

Having stated the general position on the recognition of the value of indigenous ecosystems management methods, the real issue relates to the readiness of states to utilize such indigenous expertise. Even though the

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<sup>233</sup> See generally, Michael Warren, 'Indigenous Knowledge, Biodiversity Conservation and Development' at <<http://www.ciesin.columbia.edu/docs/004-173/004-173.html>> at 5 September 2006.

provisions made by some states, for instance, Australia, could not be said to be comprehensive, they are still enough to be used as progressive step stones. However, in terms of actual implementation, things seem to be quite different. Even though some countries are cooperating with local communities in several areas of ecosystems management, a lot still has to be done to bring to indigenous expertise in this respect to be accorded priority.<sup>234</sup> A case in point is the recent bush fires that have raged across Australia, the United States and Canada, where little efforts have been made to employ indigenous fire management techniques to fight or control the fires.<sup>235</sup> For instance, while Australia invited fire fighters from Canada to assist in fighting wildfires, there has been no priority to engage Australian indigenous and local communities in this respect.<sup>236</sup> The same could also be said of the flood and other natural disasters that have ravaged several countries in recent times. In essence, the formal recognition of aspects of indigenous knowledge systems, here ecosystems management, is only but a starting point in the long process of validation and use of their ecosystems management techniques by respective states.

## 1.4. Conclusion

Sophisticated knowledge of the natural world is not confined to science. Human societies...have developed rich sets of experiences and explanations relating to the environments they live in.'<sup>237</sup>

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<sup>234</sup> Australia and Canada are some of the countries that have tried to engage local communities in this area.

<sup>235</sup> In Australia, for instance, Bush Fires are considered a way of life since all the states have experienced serious fires over the years. See generally 'Natural Disasters in Australia' at <<http://www.cultureandrecreation.gov.au/articles/naturaldisasters/>> at 8 February 2007.

<sup>236</sup> See 'Canadian Fire fighters to Arrive in Australia for Wildfire Fight' at <[http://fe.pennnet.com/News/Display\\_News\\_Story.cfm?Section=WireNews&SubSection=HOME&NewsID=142700](http://fe.pennnet.com/News/Display_News_Story.cfm?Section=WireNews&SubSection=HOME&NewsID=142700)> at 8 February 2007.

<sup>237</sup> See D. Nakashima et al, *Tapping into the World Wisdom* (2000) UNESCO at <[http://www.unesco.org/education/tlsf/TLSF/theme\\_c/mod11/uncom11bod.htm](http://www.unesco.org/education/tlsf/TLSF/theme_c/mod11/uncom11bod.htm)>

This chapter has examined the nature of indigenous knowledge systems. In doing this, the characteristics of the knowledge systems were highlighted, including their collective, cumulative, and holistic aspects. These cumulative and holistic attributes are strong factors that account for collectivity of knowledge use within indigenous communities. They also account for the preponderance of oral traditions as the mode of knowledge transmission between, and among, local communities, emphasizing the distinctive nature of the knowledge systems. Another factor is the innate inter-connectedness of indigenous knowledge systems, which makes it difficult to strictly compartmentalize the constituents into rigid components for purposes of analysis.

The discussions above also examined the content of indigenous knowledge systems, using the components of TMK, expressions of folklore, and indigenous ecosystem management. As a consequence of the complex nature of indigenous knowledge systems, any attempt to rigidly articulate their variables remains difficult. However, despite the fact that these knowledge systems could vary in some degrees across local communities, the fact remains that the major attributes also endure. Variations are usually common in areas of cultural expressions, traditional medicinal practices, dances, oral traditions, and folklore, where each community modifies the process of expression to suit its local conditions, beliefs and practices. These variations go to affirm that, although indigenous peoples have some common attributes across the board, they are still dynamic and not homogenous entities.<sup>238</sup>

The global recognition of the utility of several aspects of indigenous knowledge systems was also highlighted. In total, the discussions reveal, in so many ways, the difficulty inherent in discussing the attributes of the

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<sup>238</sup> See generally Susan Scafidi, 'Old Law in the New World: Solorzano and the Analogical Construction of Legal Identity' (2003) 55 *Florida Law Review* 2003; Christine Z. Cruz, 'Four Questions on Critical Race Praxis: Lessons from Two Young Lives in Indian Country' (2005) 73 *Fordham Law Review* 2133.



knowledge systems in any other way but holistically. For instance, it could be seen that there are overlaps between traditional medicines and the biodiversity and genetic aspects of indigenous ecosystems. But that is the nature of indigenous knowledge systems and such holistic interconnection is found across all aspects of the systems. For instance, how possible is it to separate the concept of indigenous ecosystems from indigenous lands? Also, what could be the distinction between the concept of 'indigenous land' and 'indigenous property'? These questions and related issues will be discussed in the next chapter.

In the final analysis, it could be concluded that the nature of indigenous knowledge systems is composite and complex, but they have long served to effectively sustain several indigenous and local communities. Apart from this, it has been seen that these systems are also making, and in the future, will continue to make, much more invaluable contributions to the effectiveness of global health care delivery systems and ecosystems management.

## **Chapter Two**

### **'Property' and Indigenous Knowledge Systems**

## Chapter Two

### 'Property' and Indigenous Knowledge Systems

#### 2. Introduction

Never in the history of Western political theory has property been ignored. Among Classical and medieval thinkers, Plato, Aristotle and Aquinas, all had something to say about property. In the Modern Period, Grotius, Pufendorf, Filmer, Locke, Hume, Rousseau, Kant, Hegel, Marx, Bentham and Mill all assigned property a central place in their speculations on human values and society.<sup>1</sup>

Any discussions about indigenous knowledge systems and the interests of indigenous peoples must, of necessity, touch on the issue of 'property' generally speaking, or land and land rights specifically. This is because the issues surrounding indigenous property claims and the determination of title to land have engaged the attention of governments and courts in several countries over several decades, even centuries.<sup>2</sup> One factor that seems to contribute to the problems often encountered by non-indigenous audiences when dealing with access to indigenous knowledge systems is the nature of what could be called 'indigenous property.' As a consequence of the distinctive socio-cultural practices of indigenous groups, which in turn manifests in their notion of 'property', the mainstream Western understanding of the term 'property' imports severe misunderstandings and

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<sup>1</sup> See Stephen R. Munzer, 'Introduction' in Stephen R. Munzer, (ed), *New Essays in Legal and Political Theory of Property* (2001) 1. See also Ronald Dworkin, *Taking Rights Seriously* (1977) 279- 290.

<sup>2</sup> See for instance, *Amodu Tijani v. Secretary, Southern Nigeria* (1921) 2 A.C. 399; *Mabo v. State of Queensland* (No. 2)(1992) 175 CLR 1; *Milirrpum v. Nabalco Pty Ltd and the Commonwealth of Australia* (1971) 17 FLR 141. Also, see the Canadian cases of *St. Catherine Milling and Lumber Co. v. The Queen* (1889) 13 SCR 577; *Calder v. Attorney General of British Columbia* (1973) 34 D.L.R. 3d 145; *R v. Van der Peet* (1996) 137 DLR (4th) 289; *Campbell v. Hall* (1774) 1 Cowp. 204 (98 E.R. 1045) in Brian Donovan, 'Common Law Origins of Aboriginal Entitlements to Land' (2003) 29 *Manitoba Law Journal* 289, 291fn.

limitations when used as a yardstick to analyze indigenous proprietary interests.<sup>3</sup>

This chapter will consider the issues relating to the concept of 'property' from both Western and indigenous peoples' perspectives. Some of the attributes of property will also be examined.<sup>4</sup> Essentially, the general theme here is that the concept of 'property' within the jurisprudence of indigenous peoples is built on quite different fundamentals from the understanding of the concept in Western thought. As was seen in the last chapter, the concept of the indigenous ecosystem includes land, biodiversity resources, and the environment, and also incorporates all the attributes of Western property. As will be seen shortly, the difference between the two systems is the manner that property attributes are articulated and exercised within indigenous communities. This does not mean that there might not be any common trait(s) that runs through both property regimes. Such commonalities will be highlighted where applicable. The overall intention here is to sieve-out the intricate and interconnected proprietary interests that are embedded within the indigenous knowledge systems, and highlight any possible conceptual difficulties that might ensue in attempting to treat the concept of 'property' and its attributes as being universally homogenous.

In terms of structure, the first part of this chapter will be devoted to issues that concern the notion of 'property' in the Western sense. However, the discussions will not include issues relating to intellectual property rights (IPRs), which will form the basis of a subsequent chapter. The second part of the chapter will deal with the concept of indigenous property, bringing out its peculiarities and other essential attributes. These peculiarities that characterize the nature of indigenous property become more complicated

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<sup>3</sup> See Bradley Bryan, 'Property as Ontology: On Aboriginal and English Understanding of Ownership' (2000) 13 *Canadian Journal of Law and Jurisprudence* 3, 4.

<sup>4</sup> See generally Joan L. McGregor, 'Property Rights and Environmental Protection: Is this Land Made for You and Me?' (1999) 31 *Arizona State Law Journal* 391.

when the subject is analyzed by Western standards. This is because, in most cases, some Western property terminologies are difficult to fit within the structure of indigenous resource holdings.

## 2.1. The Meaning of 'Property'

As a subject, the concept of property is a difficult one to discuss.<sup>5</sup> In Western discourse, 'property' is difficult to precisely define, as it appears to have no definite or consistent connotation.<sup>6</sup> Consequently, sometimes the term has been used to indicate physical objects to which legal rights and privileges could attach.<sup>7</sup> At other times, it is used to denote the legal interest(s) that relate to these physical objects.<sup>8</sup> In essence, it is increasingly difficult to determine the meaning and scope of some of the widely used notions in property discourse, including the notions of 'ownership' and 'possession'.<sup>9</sup> This has led to a trend where most scholars have chosen to discuss the characteristics of 'property' instead of offering any definition, or otherwise, to couch their definition(s) simply in descriptive terms.<sup>10</sup>

In general, Lawson discusses the concept of property from the relational perspective, that is, focusing on the relationship of persons to things,<sup>11</sup> while Tooher and Dwyer discuss the concept as a legal and social institution reflecting a host of social, moral, economic and political perceptions.<sup>12</sup> On his

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<sup>5</sup> See Laura S. Underkuffler, 'On Property: An Essay' (1990) 100 *Yale Law Journal* 127, 128.

<sup>6</sup> See Wesley N. Hohfeld, 'Some Fundamental Legal Conceptions as Applied in Judicial Reasoning' (1913-1914) *Yale Law Journal* 16, 21.

<sup>7</sup> *Ibid.*

<sup>8</sup> *Ibid.*

<sup>9</sup> For a detailed discussion on the topics of 'possession' and 'ownership,' see generally James W. Harris, *Property and Justice* (1996), Ishtalingappa S. Pawate, *Res Nullius: An Essay on Property* (1938) 1-57.

<sup>10</sup> See Charles Donahue Jr., 'The Future of the Concept of Property Predicted from its Past' in Ronald J. Pennock and John W. Chapman (eds), *Property (Nomos XXII)* (1980) 28, 30.

<sup>11</sup> See generally, Frederick H. Lawson, *Introduction to the Law of Property* (1958) 18-60.

<sup>12</sup> See Joyce G. Tooher and Bryan M. Dwyer, *Introduction to Property Law* (3rd ed. 1997) 1.

part, Reich approaches the property discourse from a functional perspective.<sup>13</sup> In this respect, while affirming the legally institutional nature of property, he posits that the institution of property was created to perform several functions, one of which is to draw a boundary between public and private powers.<sup>14</sup> In performing this role, property functions to maintain the independence, dignity and pluralism in every society by creating zones within which everyone else has to yield to the person with the best property right.<sup>15</sup> By necessary extension, this implies that property also functions in assisting to create societal harmony by reducing the tensions that would have otherwise arisen where several equal and competing interests converge on a particular resource(s).<sup>16</sup> These functions are performed through the instrumentality of what is commonly known as 'property rights,' that is, a bundle of rights that confer varying entitlements on different rights holders.<sup>17</sup>

From the evolutionary perspective, the development of property<sup>18</sup> as an institution in Anglo-American jurisprudence has been a long, and some might say, tortuous one.<sup>19</sup> It has been observed that the property institution is not simply an incidence of nature, but rather a complex set of institutional and social relations that evolved through time.<sup>20</sup> This observation might seem contentious from the perspective of the natural rights approach to property and property rights. This approach perceives property primarily as a gift from

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<sup>13</sup> See Charles A. Reich, 'The New Property' (1964) 73 *Yale Law Journal* 733.

<sup>14</sup> *Ibid* 771.

<sup>15</sup> *Ibid*.

<sup>16</sup> See generally, Harold Demsetz, 'Toward a Theory of Property Rights' (1967) 57 *American Economic Review* 347.

<sup>17</sup> *Ibid*. See also, Carol Rose, 'Property Rights, Regulatory Regimes and the New Takings Jurisprudence- An Evolutionary Approach' (1990) 57 *Tennessee Law Review* 577.

<sup>18</sup> For a general discussion on the evolution of property, see generally Paul Lafargue, *The Evolution of Property from Savagery to Civilization* (1890) 1-20.

<sup>19</sup> See generally, Bruce Welling, *Property in Things in the Common Law System* (1996).

<sup>20</sup> See Bryan, above n 3, 7.

God in common to mankind,<sup>21</sup> although not all natural rights scholars fully share this view.<sup>22</sup>

In explaining what is called 'entropy in property,' Professor Parisi traces the evolution of property from agrarian societies through the feudal system of land ownership.<sup>23</sup> He asserts that in traditional agrarian societies, the rules that governed the incidence of property (especially land) ownership were relatively simple and straightforward.<sup>24</sup> For instance, he notes that due to the largely close-knitted nature of these societies, there were instances where persons that used particular piece(s) of land to hunt could also acquire hunting rights, and those who raised livestock could also obtain grazing rights in the same geographic area.<sup>25</sup> He submits that this peculiar dynamism in the use of property was the natural consequence of deriving property from the actual use and possession of land by these communities to suit their respective circumstances.<sup>26</sup> However, with the passage of time, these earlier agrarian societies developed a more complex conception of property to suit their changing social and economic developments.<sup>27</sup> This change in property holding had the effect of making the property regime in these agrarian communities closely resemble the institution of property as conceptualized in Western jurisprudence.<sup>28</sup> The defining characteristic of this latter regime is the predominance of single owners that possess all the rights and privileges over particular properties.<sup>29</sup>

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<sup>21</sup> See Christopher J. Berry, 'Property and Possession: Two Replies to Locke-Hume and Hegel' in *Property* (NOMOS XX11) above n 10, 89-90.

<sup>22</sup> Ibid.

<sup>23</sup> See Francesco Parisi, 'Entropy in Property' (2002) 50 *American Journal of Comparative Law* 595.

<sup>24</sup> Ibid 597.

<sup>25</sup> Ibid.

<sup>26</sup> Ibid.

<sup>27</sup> Ibid 598.

<sup>28</sup> Ibid.

<sup>29</sup> Ibid.

In the overall analysis, therefore, it seems that the evolution of property was a progression toward the institution of private property and the consolidation of property rights.<sup>30</sup> However, there still appears to be divergent scholarly thoughts with respect to the roles, limits and significance of some of the attributes of property, like 'ownership'<sup>31</sup> and 'possession.'<sup>32</sup> Added to this divergence is the fact that the notion of property itself is not a constant phenomenon but shifts with societal development and advances in human development.<sup>33</sup> This seems to explain why, through the several stages of its development, the property institution has come to mean different things to different people depending on their ideological, socio-economic, and cultural leanings.<sup>34</sup>

According to Harris, property has increasingly become a fluid concept of utility serving to protect highly regarded interests,<sup>35</sup> and it continues to expand to include things as broad as jobs, entitlements, occupational licenses, contracts, subsidies, and other intangibles that are the product of labour and creativity.<sup>36</sup> In essence, it has become clear that with the passage of time the concept of 'property' has become increasingly sophisticated and dynamic, apparently reflecting the changing social advances, mores and perceptions of Western societies.<sup>37</sup> This dynamism relates to the fact that the genre of resources to which property rights may be attached continues to vary with advances in society.<sup>38</sup> In this respect, although the concept of property in the

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<sup>30</sup> See for instance Tooher and Dwyer above n 12, 1.

<sup>31</sup> See for instance Gottfried Dietze, *In Defense of Property* (1963) 9-39. Also see generally, Mary T. Cusack, *The Significance of a Changing Concept of Ownership in Social and Economic Planning* (1940).

<sup>32</sup> See generally, Carol M. Rose, 'Possession as the Origin of Property' (1985) 52 *University of Chicago Law Review* 73.

<sup>33</sup> See Richard Tuck and Michael Silverthorne (eds), *Thomas Hobbes, On the Citizen* (1998) 85.

<sup>34</sup> See John Locke, 'On Property' in Crawford B. Macpherson (eds), *Property: Mainstream and Critical Positions* (1978) 18.

<sup>35</sup> See Cheryl I. Harris, 'Whiteness as Property' (1993) 106 *Harvard Law Review* 1709, 1728-1729

<sup>36</sup> *Ibid.*

<sup>37</sup> See Kevin Gray, 'Property in Thin Air' (1991) 50 *Cambridge Law Journal* 252, 296.

<sup>38</sup> *Ibid.*



classical sense connotes things of value to which a person has a right, the modern concept focuses on its function and the social relations it reflects.<sup>39</sup>

## 2.2. The Nature of Western Property

As already noted, the nature of the institution of property as understood in Western jurisprudence has undergone continuous changes over several centuries.<sup>40</sup> These changes also relate to the specific purpose(s) that the society expects the institution of property to serve, and to the objects that are classified as property within the society.<sup>41</sup> However, it seems that these changes have not had much effect on the underlying elements of property that flowed from Roman law and are still manifest in contemporary Western property regime.<sup>42</sup>

The influence of the early Roman property law, in particular, and Roman law generally, on the Western concept of property has been far-reaching.<sup>43</sup> One of the enduring legacies of this Romanic influence has been in the area of classification of property according to the nature of use and ownership. Under Roman law, this classification was either general or specific.<sup>44</sup> The general classification relates to the description of the category of objects as capable of being owned or not, while specific classification describes the specific types of property within the general classification.<sup>45</sup> For instance, generally, some types of property could be the subject of private ownership,

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<sup>39</sup> See Harris above n 35, 1728.

<sup>40</sup> See Macpherson above n 34, 1.

<sup>41</sup> Ibid.

<sup>42</sup> See Kojo Yelapaala, 'Owning The Secret of Life: Biotechnology and the Property Rights Revisited' (2000) 32 *McGeorge Law Review* 111, 131-132.

<sup>43</sup> See Herbert F. Jolowicz, *Roman Foundations of Modern Law* (1957) 4. See also Michael Lambiris, *The Historical Context of Roman Law* (1997) 87-89; Hans J. Wolff, *Roman Law: An Historical Introduction* (1951) 3. See generally, Andrew Borkowski and Paul du Plessis, *Textbook on Roman Law* (3<sup>rd</sup> ed. 2005)

<sup>44</sup> See Yelapaala above n 42, 132. See generally, Alan Watson, *Legal Transplants: An Approach to Comparative Law* (2<sup>nd</sup> ed. 1993) 1-17.

<sup>45</sup> Ibid.

or, *res in nostro patrimonio*, while others were not, the *res extra nostrum patrimonium*.<sup>46</sup>

Specifically, among the types of property that could not be privately owned was the *res commune*, or commons property. It appears that Western property jurisprudence imbibed the essentials of the concept of the commons property,<sup>47</sup> and probably, the common heritage principle,<sup>48</sup> from this classification. In its classical Roman conception, *res communes* included subject matters like air, free running water and the seas.<sup>49</sup> Even if the contemporary formulation on the commons property differs from the above, the major idea under Roman law that such subject matters were not susceptible to private ownership still endures.<sup>50</sup>

Apart from the above, the other areas of contemporary Western property that were influenced by early Roman law include the nature of ownership, possession or occupation, the rule of capture,<sup>51</sup> and, to lesser extent, some rules on the principles of Wills and Succession, among others.<sup>52</sup> It is unlikely that these concepts could be found in contemporary application without

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<sup>46</sup> See Macpherson above n 34, 1.

<sup>47</sup> For discussion on the commons property, see Lawrence Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World* (2002) 19; Carol M. Rose, 'Rethinking Environmental Controls: Management Strategies for Common Resources' (1991) *Duke Law Journal* 1; Gareth Hardin, 'The Tragedy of the Commons' (1968) 162 *Science* 1243. For suggested solutions to the 'tragedy of the commons,' see generally, Bruce Yandle and Andrew P. Morris, 'The Technologies of Property Rights: Choice Among Alternative Solutions to the Tragedy of the Commons' (2001) 28 *Ecology Law Quarterly* 123.

<sup>48</sup> See Yelpaala above n 42, 132. For the problems encountered in administering commons property, see W.W. Buckland and Arnold D. McNair, *Roman Law and Common Law: A Comparison in Outline* (1952) 102 - 9.

<sup>49</sup> Ibid. For the difficulties that were encountered in this classification, see R.W. Lee, *The Elements of Roman Law* (4<sup>th</sup> ed 1956) 108-115.

<sup>50</sup> There are other concepts that emanated from Roman law, including the controversial *Res Nullius* concept of ownerless land, which was extensively discussed in the Australian case of *Mabo v. Queensland* (No. 2) (1992) 175 CLR 1. For criticisms of the *Terra Nullius* concept, see Bryan above n 3, 10-12; Kent McNeil, *Common Law Aboriginal Title* (1989) 110; Shelby D. Green, 'Specific Relief for Ancient Deprivations of Property' (2003) 36 *Akron Law Review* 245.

<sup>51</sup> See Michael C. Blumm and Lucas Ritchie, 'The Pioneer Spirit and the Public Trust: The American Rule of Capture and the State Ownership of Wildlife' (2005) 35 *Environmental Law* 673, 675-677.

<sup>52</sup> See Frederick P. Walton, *Historical Introduction to the Roman Law* (2<sup>nd</sup> ed. 1912) 136-161.

modifications, while some, including the commons property regime, have managed to retain nearly the same basic connotation they possessed in Roman times.

### 2.2.1. Changing Nature of Property

The succeeding centuries from Roman times have seen significant changes in the nature and essence of Western property. These changes have not been so much about changes in the type of classification seen above. The contemporary emphasis has been on the distinction between property as an institution that confers right(s) on the right(s) holder(s), and property as an object capable of physical or constructive possession.<sup>53</sup> In exploring the conventional nature of property, it appears that property an institution replete with 'bundles of rights' has become the dominant paradigm in Western discourse.<sup>54</sup> In this instance, the term 'property' generally incorporates several co-existing rights that holders can exercise, including the rights to possess, to use, and to alienate the property, while excluding all others.<sup>55</sup>

### 2.2.2. The 'Bundle of Rights'

The central underlying theme of the 'bundle of rights' idea in property is that it constitutes a set of legal relationships among people.<sup>56</sup> More importantly, it holds that property is neither simply the ownership of things nor

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<sup>53</sup> See Macpherson above n 34, 1.

<sup>54</sup> See James E. Penner, 'The Bundle of Rights Picture of Property' (1996) 43 *UCLA Law Review* 711, 712. See generally, Kenneth J. Vandavelde, 'The New Property of the Nineteenth Century: The Development of the Modern Concept of Property' (1980) 29 *Buffalo Law Review* 325.

<sup>55</sup> See Thomas W. Merrill, 'Property as the Right to Exclude' (1998) 77 *Nebraska Law Review* 730, 732-735.

<sup>56</sup> See Craig A. Arnold, 'The Reconstruction of Property: Property as a Web of Interests' (2002) 26 *Harvard Environmental Law Review* 281, 285.

relationships between owners and things.<sup>57</sup> The bundle of rights metaphor essentially constitutes a general reconceptualization of the concept of property by shifting emphasis from the 'absolute dominion over things' to 'a set of legal relations among persons.'<sup>58</sup>

The term 'bundle of rights' first appeared in the 1888 John Lewis's work *Treatise on the Law of Eminent Domain in the United States*, where the author asserted that 'the dullest individual among the *people* knows and understands that his property in anything is a bundle of rights.'<sup>59</sup> In the same respect, in 1922, Corbin confirmed this shift in emphasis in the analysis of the institution of property, when he wrote that:

Our concept of property has shifted, incorporeal rights have become property...property has ceased to describe any *res* or object of sense, at all, and has become merely a bundle of legal relations - rights, powers, privileges, immunities.<sup>60</sup>

The bundle of rights analysis of property therefore emphasizes the implicit aggregation of rights in favour of the holder of those rights as against the rest of the world.<sup>61</sup> According to Barnett, this paradigm combines the theories that were variously espoused by Hohfeld<sup>62</sup> and Honoré.<sup>63</sup> Hohfeld had developed

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<sup>57</sup> Ibid.

<sup>58</sup> See generally, Abraham Bell and Gideon Parchomovsky, 'A Theory of Property' (2005) 90 *Cornell Law Review* 531; Thomas W. Merrill and Henry E. Smith, 'The Property/Contract Interface' (2001) 101 *Columbia Law Review* 773; Radhika Rao, 'Property, Privacy and the Human Body' (2000) 80 *Boston University Law Review* 359; Alison Rieser, 'Property Rights and Ecosystem Management in U.S. Fisheries: Contracting for the Commons?' (1997) 24 *Ecology Law Quarterly* 813.

<sup>59</sup> See Robert J. Goldstein, 'Green Wood in the Bundle of Sticks: Fitting Environmental Ethics and Ecology into Real Property Law' (1998) 25 *Boston College Environmental Affairs Law Review* 347.

<sup>60</sup> See Arthur L. Corbin, 'Taxation of Seats on the Stock Exchange' (1922) 31 *Yale Law Journal* 429.

<sup>61</sup> See Katy Barnett, 'Western Australia v. Ward: One Step Forward and Two Steps Back: Native Title and the Bundle of Rights Analysis' (2000) 24 *Melbourne University Law Review* 462, 469.

<sup>62</sup> The work of Hohfeld referred to here is Wesley Hohfeld, 'Fundamental Legal Conceptions as Applied in Judicial Reasoning' (1913-1914) *Yale Law Journal* 16.

<sup>63</sup> See Antony Honoré, 'Ownership' in Anthony Guest (ed), *Oxford Essays in Jurisprudence: A Collaborative Work* (1961) 107.

the theory that property rights are rights between people, rather than rights in relation to things, therefore making a distinction between personal and proprietary rights.<sup>64</sup> He pointed out that the major difference between personal rights and proprietary rights is that proprietary rights can be enforced against the rest of the world, whereas personal rights can only be enforced against those who are parties to any particular agreement(s).<sup>65</sup>

Hohfeld's theory, as influential as it has become, has been criticized for several reasons. One reason is that it deliberately focused solely on rights and gave little or no attention to the nature of legal duties.<sup>66</sup> In this way, it has been submitted that Hohfeld's discussions of legal relations tended to reduce legal duties to mere correlatives of legal claim rights.<sup>67</sup> In essence, Hohfeld's analysis seems to project that 'the leap from a moral to a legal duty requires, at the very least, proof of a corresponding legal right.'<sup>68</sup> This, however, has proved not to be the case in all circumstances.<sup>69</sup>

On his part, Honoré extended Hohfeld's idea and seeks to specify the essential incidents of ownership of property, which he describes as 'full liberal ownership.'<sup>70</sup> Among others, these incidents of ownership include the rights to possession, use, management, security, transmissibility, absence of term, and the prohibition of harmful use.<sup>71</sup> It is not necessary that all these incidents must co-exist at a particular time for ownership to occur.<sup>72</sup> It is enough that most of the incidents co-exist in any particular instance.<sup>73</sup>

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<sup>64</sup> See Barnett above n 61, 469.

<sup>65</sup> Ibid.

<sup>66</sup> See Sarah Harding, 'Value, Obligation and Cultural Heritage' (1999) 31 *Arizona State Law Journal* 341-2.

<sup>67</sup> Ibid citing Carl Wellman, 'Relative Duties in the Law' (1990) 18 *Philosophical Topics* 183, 199; Richard Stith, 'Generosity: A Duty Without a Right' (1991) 25 *Journal of Value Inquiry* 203.

<sup>68</sup> Ibid.

<sup>69</sup> Ibid.

<sup>70</sup> See Alan Carter, *The Philosophical Foundations of Property Rights* (1989) 5.

<sup>71</sup> Other incidents include the right to earn income from the property, the right to capital, liability to execution and residuary. See Honoré above n 63, 110.

<sup>72</sup> See Stephen R. Munzer, *A Theory of Property* (1990) 22-23.

<sup>73</sup> Ibid.

However, for what is called 'full liberal ownership' to ensue, all the incidents must co-exist.<sup>74</sup> It has been submitted that the overall effect of Honoré's postulations is to extend Hohfeld's theory by applying it to physical objects.<sup>75</sup>

Two of the incidents of ownership enunciated by Honore, that is, the prohibition of harmful use, and liability to execution, have been criticized, and rightly so, for not being incidents, but restrictions on the exercise of ownership rights.<sup>76</sup> According to Carter, these two incidents are conditions or restrictions set by society to limit the use of property by owners, and therefore are not themselves incidents of ownership.<sup>77</sup> However, while having regard to this criticism, it should be noted that Honoré proposed that these incidents of ownership should be seen as legal rights and duties in cases of full ownership.<sup>78</sup> It is therefore possible that the incidents of ownership that have been criticized as restrictions were intended by Honoré to act as duties meant to inhibit the exercise of such ownership rights. Therefore, when viewed from a different perspective, these duties might have been designed by Honoré to serve as restrictions.

Whatever be the case, it appears that every theory of property or property rights has its criticisms. In essence, the notion of property has become an intricate subject and agreement among scholars as to its true nature is hard to come by<sup>79</sup>. This situation might have prompted Tolstoy to declare that 'property is the root of all evil.'<sup>80</sup>

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<sup>74</sup> See Carter above n 70, 5.

<sup>75</sup> See Barnett above n 61, 469.

<sup>76</sup> See Carter above n 70, 5.

<sup>77</sup> Ibid.

<sup>78</sup> See Honoré above n 63, 105.

<sup>79</sup> See James W. Harris, 'Introduction: Property Problems' in James W. Harris (ed), *Property Problems: From Genes to Pension Funds* (1997) 1.

<sup>80</sup> See Carter above n 70, 1 citing Leo Tolstoy, 'What is to be Done?' in Irving Horowitz (ed), *The Anarchists* (1964).

### 2.2.3. Criticisms of the 'Bundle of Rights'

Apart from the comments above, the 'bundle of rights' theory<sup>81</sup> as a whole has been criticized as a basis for property analysis.<sup>82</sup> For instance, according to Singer, the bundle of rights analysis seems to focus on rights without addressing the concomitant duties and obligations.<sup>83</sup> In a similar respect, Cribbet affirms that the bundle of rights analysis is problematic,<sup>84</sup> and that one of the sources of the problem has been the failure to recognize that the 'bundle' represents rights, and also duties.<sup>85</sup> The non-recognition of this right-duties balance in the bundle of rights analysis seems to be one of its most criticized aspects.

Professor Arnold submits that the bundle of rights approach to property is incomplete as a basis for property analysis because it tends to ignore the aspects that give rise to the rights being articulated.<sup>86</sup> This is because, in rejecting the popular understanding of property as a thing that is capable of being owned, the bundle analysis becomes abstract and more complex to analyse.<sup>87</sup> Furthermore, Arnold opines that by not recognizing the importance of 'things,' and the relationship between persons and things, the bundle analysis diminishes the relationship existing between property owners and their property.<sup>88</sup> This happens, when, property owners cease to assess themselves in terms of their property, but instead, 'define themselves in relationship to all others who might have some claim against them or against

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<sup>81</sup> See John E. Cribbet, 'Concepts in Transition: The Search for a New Definition of Property' (1986) *University of Illinois Law Review* 1. Joseph W. Singer, *Entitlement: The Paradoxes of Property* (2000) 16-17.

<sup>82</sup> For instance, see Craig A. Arnold above n 56, 290-306; Carol M. Rose, *Property and Persuasion: Essays on the History, Theory, and Rhetoric of Ownership* (1994); James E. Penner, *The Idea of Property in Law* (1997) 1-3.

<sup>83</sup> See Singer above n 81, 2-3, 82-85.

<sup>84</sup> See Penner, above n 54, 723.

<sup>85</sup> See John E. Cribbet, 'Property Lost: Property Regained' (1991) 23 *Pacific Law Journal* 93, 101.

<sup>86</sup> See Arnold above n 56, 295.

<sup>87</sup> *Ibid*, citing Eric T. Freyfogle, 'The Owning and Taking of Sensitive Lands' (1995) 43 *UCLA Law Review* 77.

<sup>88</sup> *Ibid* 299.

whom they might have some claim with respect to the...property.'<sup>89</sup> It has been submitted that when this happens, rights holders would derive no personal satisfaction from property ownership, but would think of themselves only as part of the legal abstraction of 'property rights.'<sup>90</sup>

Finally, it has been submitted that the 'bundle of rights' analysis portrays property as a concept that is without defining essence.<sup>91</sup> It presupposes that different combinations of the 'bundle' could count as property under different circumstances with no particular right in the 'bundle' being determinative above the others.<sup>92</sup> In such a situation, it would be difficult to determine the superior right(s) when there are conflicting claims over a particular property.

From the above criticisms of the bundle of rights analysis, one question remains: if all the above criticisms stand true, why has the bundle analysis continued to be a dominant component of the property discourse<sup>93</sup> within the Western judicial and academic circles?<sup>94</sup> The reason might be the nature of property right itself, which, as Grey has noted, has been interpreted in multiple and differing ways and relates to property only by analogy.<sup>95</sup> Just like the concept of property itself, the notion of 'property right' is also a term that has been approached by scholars from different perspectives.

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<sup>89</sup> Ibid.

<sup>90</sup> Ibid.

<sup>91</sup> See Penner above n 54, 723.

<sup>92</sup> Ibid. For some further analysis on the 'bundle of rights' theory, see Lisa Strelein, 'Conceptualizing Native Title' (2001) 23 *Sydney Law Review* 95; Thomas Ross, 'Metaphor and Paradox' (1989) 23 *Georgia Law Review* 1053; Myrl L. Duncan, 'Re-conceiving the Bundle of Sticks: Land as a Community-Based Resource' (2002) 32 *Environmental Law* 773; Adam Arms, 'Metaphor, Women and Law' (1999) 10 *Hastings Women's Law Journal* 257.

<sup>93</sup> See Penner above n 54, 713.

<sup>94</sup> See for instance, Felix Cohen, 'Dialogue on Private Property' (1954) 9 *Rutgers Law Review* 374.

<sup>95</sup> See Thomas C. Grey, 'The Disintegration of Property' in *Nomos* above n 10, 70-71.



### 2.3. Articulating Property Rights

Professor Rose has described property right as the 'keystone right' within the property discourse,<sup>96</sup> and this, for several reasons. First, among other things, Rose submits that the institution of property makes individuals independent and protects all other rights by fulfilling its economic functions.<sup>97</sup> Second, the acquisition and management of property help to inculcate the standard on which other rights depend. Finally, property also makes a society wealthier and acts to symbolize all other rights within the society.<sup>98</sup>

According to Harris, property rights could be categorized along the lines of their significance.<sup>99</sup> In this respect, such rights may signify, among other things, a set of privileges and powers entailed by a particular ownership or quasi-ownership interest.<sup>100</sup> In another form, they could simply signify rights that are related to duties restraining others with respect to any property.<sup>101</sup> Finally, property rights may also be in the form of moral standings, which signify that a person ought to have been invested with an ownership or non-ownership interest over a particular resource.<sup>102</sup>

The importance of property rights to the general property discourse is predicated on their function in determining when society will recognize a person's assertion of particular rights to a specific resource(s), sometimes to the exclusion of all others.<sup>103</sup> In essence, it could be said that the primary function of property rights is to define, delineate and protect the use values of

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<sup>96</sup> See Carol M. Rose, 'Propter Honoris Respectum: Property as the Keystone Right' (1996) 71 *Notre Dame Law Review* 329, 345-358.

<sup>97</sup> *Ibid.*

<sup>98</sup> *Ibid.*

<sup>99</sup> See James W. Harris, *Property and Justice* (1996) 169.

<sup>100</sup> *Ibid.*

<sup>101</sup> *Ibid.*

<sup>102</sup> *Ibid.*

<sup>103</sup> See Edwin Baker, 'Property and its Relation to Constitutionally Protected Liberty' (1986) 134 *University of Pennsylvania Law Review* 741, 744.

resource(s) within defined parameters.<sup>104</sup> Professor Baker has categorized these functions into six: the use value function, the welfare function, the personhood function, the protection function, the allocative function and the sovereignty function.<sup>105</sup> However, the attribution of these functions does not in itself explain the nature of property right, but merely highlights its role within the property institution.

According to Hess and Ostrom, a property right is an enforceable authority to undertake particular actions in a specific domain.<sup>106</sup> This view is shared by Becker, who submits that in conventional terms, a property right is simply the right of ownership.<sup>107</sup> It appears that the concept of 'ownership' in this context is to be interpreted to mean private ownership or the exercise of property rights by individuals. This is notwithstanding the fact that not all property ownerships are private in nature,<sup>108</sup> and that the term 'ownership' can be used in several contexts.<sup>109</sup>

In describing the nature of property rights, Denman submits, *inter alia*:<sup>110</sup>

Property right...is a form of power, a sanction and authority for decision-making. Public title to it is ambiguous idealism...Only persons can make decisions; only persons have a unitary consciousness. Property rights allegedly held by the public-state ownership have to be exercised by the officials of the state and, in the last analysis, individually.<sup>111</sup>

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<sup>104</sup> Ibid. See generally, Lawrence C. Becker, *Property Rights: Philosophic Foundations* (1977) 17-20.

<sup>105</sup> Ibid. See also Susan Rose-Ackerman, 'Inalienability and the Theory of Property Rights' (1985) 85 *Columbia Law Review* 931.

<sup>106</sup> See Charlotte Hess and Elinor Ostrom, 'Ideas, Artifacts and Facilities: Information as a Common-Pool Resource' (2003) 66 *Law and Contemporary Problems* 111, 124.

<sup>107</sup> See Becker, above n 104, 18.

<sup>108</sup> For discussions on the distinction between 'private property' and 'common property', see generally, Mara K. Hoyt, 'Breaking the Trade Barrier: Common Property Solution to Tropical Deforestation' (1996) 5 *Minnesota Journal of Global Trade* 195.

<sup>109</sup> See Rudolf Dolzer, *Property and Environment: The Social Obligation Inherent in Ownership* (1976) 13-14.

<sup>110</sup> See Donald R. Denman, *The Place of Property: A New Recognition of the Function and Form of Property Rights in Land* (1978) 3 - 4.

<sup>111</sup> Ibid.

It is submitted that the private nature of such property right does not necessarily imply a right that is exercised by individuals. It could be a private property right that is exercised by a group of persons. According to Munzer, quite often several individuals have legal interests in the same subject matter.<sup>112</sup> Therefore, when the term 'private property right' is used, it only goes to contrast private from public ownership and does not necessarily connote individual ownership.

In some cases, there is the tendency to discuss the concepts of 'property' and 'property right' as synonymous. In conceptual analysis however, the terms connote different institutions and interests. For example, while property rights involve only advantages to the right holder or owner of a particular asset(s), the term 'property' imports both advantages and disadvantages to the right holder.<sup>113</sup> Nevertheless, the two are connected in several respects and are equally secured by the force of law.<sup>114</sup> The function of law in property relations is well entrenched. According to Bentham, 'property and law are born together, and die together. Before laws were made there was no property, take away laws and property ceases.'<sup>115</sup>

From the evolutionary perspective, it has been submitted that much of the language surrounding the notion of property rights evolved when the incidence of ownership took on a moral,<sup>116</sup> and to a large extent, personal element. In this respect, the position of the right holder becomes paramount in the whole property discourse. Therefore, in the overall assessment of the functions of property right, it could be said to primarily confer on the right-

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<sup>112</sup> See Stephen R. Munzer, *A Theory of Property* (1990) 89.

<sup>113</sup> Ibid.

<sup>114</sup> Ibid.

<sup>115</sup> See Jeremy Bentham, *An Introduction of the Principles of Morals and Legislation* (1970) 11-12 cited in Carter above n 70, 51.

<sup>116</sup> See V. G. Kiernan, 'Private Property in History' in Jack Goody et al (eds), *Family and Inheritance: Rural Society in Western Europe, 1200-1800* (1976) 361, in Bryan, above n. 3, 8.

holder(s) the key rights to possess, consume, and alienate property in question.<sup>117</sup> In essence, this translates to ownership rights.

## 2.4. The Essentials of Ownership

One of the most essential attributes of ownership is the right to exclude others from a particular property.<sup>118</sup> 'The right to exclude others is more than just "one of the most essential" constituents of property - it is the *sine qua non*.'<sup>119</sup> In interpreting the incidents of ownership as enunciated by Honoré, Munzer expressly includes the powers to exclude and to transfer,<sup>120</sup> while Honoré treats the right to exclude others under the right to possess, and insists that such a right of control forms the 'foundation on which the whole superstructure of ownership rests.'<sup>121</sup> However, the incidence of excludability only implies that the right holder has the legal right to exclude others from the property in question, and not necessarily that such a right would ever be exercised.<sup>122</sup> This notwithstanding, of all the incidents of property, Merrill submits that the right to exclude others 'is a necessary and sufficient condition of identifying the existence of property.'<sup>123</sup> This is because other incidents of property are contingent on the right to exclude in the property rights discourse.<sup>124</sup>

In Western property discourse, the view that the right of exclusion is determinant of property could be criticized. While it is plausible to argue that such a right is an important element of full ownership right, it is doubtful,

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<sup>117</sup> See Yoram Barzel, *Economic Analysis of Property Rights* (1989) 2.

<sup>118</sup> There are few exceptions to this right, such as the 'fair use exception' in copyright law. This will be discussed in chapter six of this work.

<sup>119</sup> See Thomas W. Merrill, 'Property and the Right to Exclude' (1998) 77 *Nebraska Law Review* 730, 730 citing *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979); *Dolan v. City of Tigard* 512 U.S. 374 (1994).

<sup>120</sup> See Munzer above n 112, 22.

<sup>121</sup> See Honoré above n 63, 113.

<sup>122</sup> Ibid 90.

<sup>123</sup> See Merrill above n 119, 731.

<sup>124</sup> Ibid.

whether, in all cases, the right to exclude others is superior to all other rights. For instance, a licensee of a property could have the right to exclude others with inferior title over a property. However, such a right to exclude does not confer the power of alienation on the licensee without more. Therefore, even though the right of exclusion is important in the realm of Western property, it appears that its effects would have to be determined holistically in each case.

An answer to the above criticism could be that a licensee's power to exclude others is derived from the act of possession and not from any claim to ownership. In this instance, since the owner would have legally admitted the licensee to the property, the licensee's exercise of the right to exclude during the currency of the license is traceable to the overriding right of the owner.

Honoré discusses the right to alienate under 'the right to capital', which includes the liberty to consume, waste or destroy the subject matter in question, within the limits of the law.<sup>125</sup> Just like the right to exclude, the right to alienate is also an important incident of western property. According to Luban, 'the rights to exclude and alienate are central components of private property as the common law understands it'.<sup>126</sup> In this respect, there appears to be a consensus within the Western property discourse that an owner of property usually has the legal right to alienate such property within the confines of the law.<sup>127</sup>

As will be seen below, the articulation of the incidents of Western property and their effects are some of the areas of divergence between Western and indigenous concepts of property. Indigenous communities tend to view their resources holistically and it could be difficult to demarcate what is 'property' and what is not. This is apart from the fact that other Western concepts,

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<sup>125</sup> See Honoré above n 63, 118.

<sup>126</sup> See David Luban, 'Taking Out the Adversary: The Assault on Progressive Public Interest Lawyers' (2003) 91 *California Law Review* 209, 231.

<sup>127</sup> See Jason R. Goldstein, 'Deaccession: Not Such a Dirty Word' (1997) 17 *Cardozo Arts and Entertainment Law Journal* 213, 214.

including exclusive rights, alienation, and ownership also have different connotations within the indigenous knowledge property regime.

These discussions have attempted to set out a general picture of the Western institution of property and some of its entitlements.<sup>128</sup> The analysis has deliberately avoided going deep into the philosophical debates on property, property rights, and related issues. These issues have been extensively discussed elsewhere.<sup>129</sup> The discussions here are meant to form the basis for discussing the concept of indigenous property and to provide an opportunity for considering the notion of property and its constituents within the indigenous paradigm.

## 2. 5. The Concept of 'Indigenous Property'

This section will attempt to sketch-out the nature of indigenous property. The term 'property' is used in this section for purposes of convenience, because, as will be seen shortly, it is to an extent doubtful whether there is anything like 'indigenous property' in the Western sense of the term.<sup>130</sup> The idea of what could be classified as 'property' within the typical indigenous scenario is usually intricately intertwined with the other aspects of indigenous peoples' well-being, especially their natural environment. In consequence, even where there are indigenous rights that resemble the Western property

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<sup>128</sup> There are other justifications that include the functions of 'property' to enhance 'liberty,' 'human nature' and 'moral development'. See generally, Carter above n 70, 101-113.

<sup>129</sup> See generally, Jeanne L. Schroeder, 'The Vestal and the Fasces: Property and the Feminine in Law and Psychoanalysis' (1995) 16 *Cardozo Law Review* 805; Jess Feist, *Theories of Personality* (1985); Richard Schlatter, *Private Property: The History of an Idea* (1951); Robert LeFevre, *The Philosophy of Ownership* (1966); Michael A. Heller, 'The Boundaries of Private Property' (1998) 108 *Yale Law Journal* 1163; John Christman, *The Myth of Property* (1994); Jeremy Waldron 'What is Private Property' (1985) 5 *Oxford Journal of Legal Studies* 313; Alan Ryan, *Property and Political Theory* (1984).

<sup>130</sup> Macklem seeks to provide some explanations on the nature of indigenous property by projecting 'undifferentiated' and 'differentiated' rights. See Patrick Macklem, 'Indigenous Rights and Multinational Corporations at International Law' (2001) 24 *Hastings International and Comparative Law Review* 475.

rights as discussed above, they do not usually confer the same types of entitlements on indigenous peoples.

In attempting to delineate the nature of indigenous property, the pivotal issue is the nature of entitlements that accrue from property within indigenous settings. The major distinction between Western and indigenous concepts of property appears to be in relation to their functions. As noted above, the major function of Western property right is to define and allocate entitlements in a way that protects and rewards the right holders.<sup>131</sup> In contrast, the major functions of indigenous property right are to strengthen the web of communal relationships within the local communities, while ensuring the subsistence of the members. In this respect, indigenous property has been described as representing a 'bundle of relationships'.<sup>132</sup> The relationships referred to here exist among the peoples themselves, that is, in terms of their community and individual responsibilities,<sup>133</sup> and between the peoples and their general environment.

The complex nature of indigenous relationships has created a situation whereby it is difficult, and sometimes impossible, to compartmentalize and discuss indigenous proprietary entitlements based on the major trappings and attributes of the Western property institution. In several instances, these attributes of Western property may have only tangential applications, if at all, to indigenous circumstances. The effect of this situation is the seeming incongruence that results when the elements of Western property are interposed on indigenous scenario. This is especially so with respect to cases that border on land and land rights, as indigenous peoples regard their lands as the centrepiece of their proprietary interests.

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<sup>131</sup> See generally Emily Sherwin, 'Two-and-Three-Dimensional Property Rights' (1997) 29 *Arizona State Law Journal* 1075.

<sup>132</sup> See Erica-Irene Daes, Final Report of the Special Rapporteur: Protection of the Heritage of Indigenous Peoples. E/CN.4/Sub.2/1995/26. Sub-Commission on Prevention on Prevention of Discrimination and Protection of Minorities, UNESCO Commission on Human Rights, in Marie Battiste and James Y. Henderson, *Protecting Indigenous Knowledge and Heritage: A Global Challenge* (2000) 150.

<sup>133</sup> *Ibid.*

### 2.5.1. Land as the Bedrock of Indigenous Property

It would be proper to affirm that, within indigenous circles, land, to a large extent, represents what the institution of property does in Western jurisprudence. In both literal and substantive terms, it could be said that the lives of indigenous peoples and local communities are intricately linked to their lands. Professor Anaya has referred to this as an 'ongoing relationship with the land'.<sup>134</sup> This is the natural offshoot from the nature of indigenous community organization, which is based primarily on the social principles of collective appropriation, kinship ties, and entrenched systems of undivided access to their means of subsistence and sustenance.<sup>135</sup> This does not imply that there are no instances of individual ownership of assets within some indigenous and local communities.<sup>136</sup> However, the primary resource for sustenance, which is land, is mostly collectively owned and exploited.

The importance and centrality of land to indigenous peoples' culture and well-being has led to what, for the present purposes, could be called the 'land-property metaphor'. This is the phenomenon where almost all the natural resources and ecosystems within any indigenous community are classified as land, including land in the physical sense and all other manifestations thereon, including mineral resources. As a consequence, any attempt to discuss indigenous property often ends up as a discussion of indigenous land holdings. The concept of land, then, extends generically to all aspects of indigenous peoples' natural environment, including water bodies and plant and animal biodiversity resources. In describing the place of land within indigenous and local communities, Worthen notes:

For them land is not only a means of production or a possession, they consider that the land is part of the total environment in which they carry on their life. They do not own the land but the land (the 'Mother

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<sup>134</sup> See generally James S. Anaya, *Indigenous Peoples in International Law* (1996) 104-106.

<sup>135</sup> See Tim Ingold, *The Appropriation of Nature: Essays on Human Ecology and Social Relations* (1986) 223.

<sup>136</sup> *Ibid.*



Earth') owns them and generates them as sons. For this reason the link with land has such a spiritual value.<sup>137</sup>

The international community has since recognized the special relationships that exist between indigenous peoples and their lands. For instance, article 25 of the *Draft Declaration on the Rights of Indigenous Peoples* 1994,<sup>138</sup> provides, *inter alia*, that, 'indigenous peoples have the right to maintain and strengthen their distinctive spiritual and material relationship with the lands.' The fact that the notion of 'indigenous land' incorporates diverse subject matters, including aspects of fauna, flora, waterways, and the environment, indicates that the survival of respective local communities is dependent on access to their lands.

As a consequence, the notion of 'land' has become virtually omnipresent in all aspects of indigenous lives.<sup>139</sup> It is difficult to strictly separate land from property, or flora and fauna from the land. In explaining this ubiquity that characterizes the notion of indigenous land, the International Indian Treaty Council maintains that it is based on the underlying philosophy of indigenous way of life. It states further that this philosophy is characterized by:

...a great love and respect for the sacred quality of the land which has given birth to and nourished the cultures of indigenous peoples. These peoples are the guardians of their lands which, over the centuries, have become inextricably bound up with their culture, spirits, their identity and survival. Without the land bases, their cultures will not survive.<sup>140</sup>

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<sup>137</sup> See Kevin J. Worthen, 'The Role of Indigenous Groups in Constitutional Democracies: Lessons from Chile and the United States' in C.P. Coehn (ed), *The Human Rights of Indigenous Peoples* (1998) 241.

<sup>138</sup> The *Draft Declaration on the Rights of Indigenous Peoples* 1994. For the text of the Declaration, see <<http://www.usask.ca/native-law/ddir.html>> at 22 June 2006.

<sup>139</sup> See Marissa L. Hughes, 'Indigenous Rights in the Philippines: Exploring the Intersection of Cultural Identity, Environment, and Development' (2000) 13 *Georgetown International Environmental Law Review* 3, 13.

<sup>140</sup> See the Report to the Commission on Indigenous Philosophy, presented by the International Indian Treaty Council (September 1981) cited in Julian Burger, *Report from the Frontier: The State of the World's Indigenous Peoples* (1987) 14.

In contributing to this discourse, Henderson illustrates this distinct indigenous-land relationship by describing indigenous idea of property as 'ecological space that creates ...consciousness, not an ideological construct or fungible resource ... Their vision is of different realms enfolded into a sacred space ... It is fundamental to their identity, personality...'<sup>141</sup> For indigenous peoples, therefore, the idea of property is encapsulated in the notion of 'land,' which itself is not viewed simply as material possession or a means of production. Quiet often, the entire relationships between the spiritual life of indigenous peoples and their lands have deep-seated implications,<sup>142</sup> which distinguish indigenous peoples from other non-indigenous societies.<sup>143</sup> This could, for instance, relate to the inalienability of certain aspects or portions of their physical lands or other resources for reason of sacredness or centrality to the community. These implications need to be understood by non-indigenous audiences, and it is the inability or refusal to acknowledge the distinctiveness of the indigenous property paradigm that compounds the complexity of the subject. This is especially the case when some of the attributes of Western property ownership, for instance, the rights to exclude and alienate, are interposed on indigenous situations.

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<sup>141</sup> See James Henderson, 'Mikmaw Tenure in Atlantic Canada' (1995) 18 *Dalhousie Law Journal* 196, in Daes, Erica-Irene, Human Rights of Indigenous Peoples: Indigenous People and their Relationship to Land (2nd Progress Report on Working Paper) UN Commission on Human Rights, Sub-Commission on Prevention of Discrimination and Protection of Minorities (1999) Item 12. See

<http://www.unhchr.ch/Huridocda/Huridoca.nsf/0/154d71ebbbdc126a802567c4003502bf?Opendocument> at 8 February 2005.

<sup>142</sup> Ibid. Item 14.

<sup>143</sup> See Burger above n 171, 13.

### 2.5.2. Juxtaposing the Attributes of Western and Indigenous Property Regimes

It was noted that some of the key attributes of Western property ownership include the rights to use, to earn income, to transfer, to alienate and to exclude others from a particular property.<sup>144</sup> It appears that these attributes have been integral part of the Western property institution since antiquity. For instance, for Aristotle, something is considered to be 'our own' if it is 'in our power to dispose of it, or keep it.'<sup>145</sup> The proprietary idea in this context emphasizes the attributes of use and alienation as rights that are embedded in property ownership. On his part, Grotius also adopted a similar picture of the attributes of property in saying that 'men, who are the owners of property, should have the right to transfer ownership, either in whole or in part. For this right is present in the nature of ownership.'<sup>146</sup> If the nature of Western property ownership incorporates, implicitly or explicitly, the rights to use, exclude and alienate, how do these attributes fare when interposed on indigenous property regime?

### 2.5.3. Comparing Key Attributes

What then are the incidents of indigenous property and how do they compare, functionally and otherwise, with those of Western Property? The key attribute of indigenous property holding is the collectivity of use. As will be seen below, this collectivity does not entirely rule out the incidence of individual holdings in appropriate cases. However, collectivity is the central norm within most local communities.

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<sup>144</sup> See Honoré, above n 63, 107.

<sup>145</sup> See Aristotle, *Rhetoric* (W. Rhys Robert Trans. 1954) cited in Adam Mossof above n 9, 391.

<sup>146</sup> Ibid, citing Hugo Grotius, *De Jure Belli ac Pacis Libri Tres* (Francis W. Kesley trans. 1925) 186.

Strictly speaking, therefore, the notion of 'ownership',<sup>147</sup> which incorporates the most fundamental sets of entitlements under the Western property institution,<sup>148</sup> will have limited application to indigenous situations. Collective indigenous property holdings are more preponderant. This collectivity is a result of the complex network of kinship relationships that characterize indigenous filial and communal interactions.<sup>149</sup> These close relationships dictate that lands and other resources belonging to any particular community are utilized in ways that ensure the subsistence of members, and are based on collective norms dictated by a community's social systems. In most cases however, this indigenous collectivity in the areas of resource holding and exploitation is incomprehensible to non-indigenous audiences.<sup>150</sup>

This does not mean that there are no forms of individual property ownerships within indigenous communities, although the extent of the entitlements these communities attach to the term varies from one community to another. The dominant norm across local communities is that ownership is vested in the family, clan, kindred or community, or sometimes figuratively in the Chief or Head.<sup>151</sup> In describing the general position of the Chiefs in relation to land ownership, Wa and Uukw observe that:

For us, ownership of territory is a marriage of the Chief and the land. Each Chief has an ancestor who encountered and acknowledged the life of the land. From such encounters comes power. The land, the plants, the animals and the people all have spirit-they all must be shown respect. That is the basis of our law...By following the law, the power flows from the land to the people through the Chief...<sup>152</sup>

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<sup>147</sup> For the problems associated with the Western notion of 'ownership,' see Jeremy Waldron, 'What is Private Property' (1985) 5 *Oxford Journal of Legal Studies* 333-348.

<sup>148</sup> See Thomas E. Holland, *The Elements of Jurisprudence* (1924) 208 - 210; Graham B.J. Hughes, *Jurisprudence* (1955) 131.

<sup>149</sup> See John H. Bodley, *Victims of Progress* (3<sup>rd</sup> ed 1990) 77.

<sup>150</sup> *Ibid.*

<sup>151</sup> *Ibid.*

<sup>152</sup> See Gisday Wa and Delgam Uukw, *The Spirit of the Land* (1989) 7-8, in Bryan above n 3, 22.

It should be noted that in such situations, the Chief or Head cannot in any way permanently alienate any such resource(s) without the express consent of the members of the community.<sup>153</sup> In other cases, there could be 'individual owners' who act as the custodians of the resource(s) in question, and exercise whatever rights and duties are attached to the position on behalf of the members of the community.<sup>154</sup> In essence, in such instances it could be said that what the owners hold exclusively are the 'rights of custodianship' to the resource(s) and do not own the resource(s) itself.<sup>155</sup> In describing the system that characterizes the ownership of land among the indigenous peoples of the Western Cape York Peninsula in Australia, Sutton notes that the people speak of ownership by using terms which means 'to look after, wait for, wait upon, guard.'<sup>156</sup> This appears to be a system that is structured in the form of custodianship.<sup>157</sup>

With reference to the ownership of natural resources, and specifically physical lands, it should be noted that although the rules of indigenous property holdings appear complex in nature, they are, however, not unorganized.<sup>158</sup> In most indigenous societies, certain fundamental tenets in relation to property ownership are always adhered to. One of these is that group boundaries are usually well marked-out and demarcated in order to aid the effective use and defence of property against any external encroachment(s).<sup>159</sup>

Notwithstanding the above observations, there could be some instances of indigenous individual ownership in the strict sense of the term, with all the attributes of Western ownership. This depends on the acceptable social and

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<sup>153</sup> See Bodley, above n 149, 77.

<sup>154</sup> See Ingold, above n 135, 224.

<sup>155</sup> Ibid.

<sup>156</sup> Ibid 240n, citing P.J. Sutton, *Wik: Aboriginal Society, Territory and Language at the Cape Keerweer, Cape York Peninsula, Australia* (1978) 57; Ph.D. Thesis, Dept. of Anthropology and Sociology, University of Queensland, Australia.

<sup>157</sup> Ibid.

<sup>158</sup> Ibid.

<sup>159</sup> See Bodley above n 149, 77.

cultural practices of each community where individuals are allowed to acquire assets by themselves and keep same for exclusive personal or family use. In describing the situation in some communities in Ghana, Ollennu affirms that under customary law, whenever an individual acquires property by his own personal exertion through the application of his skills in business or intellectual pursuits, such is recognized as his self-acquired or individual property.<sup>160</sup> In such a situation nobody interferes with the person's right to enjoy such personal property.<sup>161</sup> In this instance, it is safe to say that the incidence of 'ownership' would be on all fours with the Western concept of ownership: that is, replete with the full rights of 'use, exclusion and alienation.' However, instances of indigenous communities where such absolute rights of property ownership are found appear to be exceptions rather than the rule. In most cases, the trend is that even when individuals have a right to use and exclude, they usually do not have the right to permanently alienate such property.<sup>162</sup>

The question might be asked as to why the notion of indigenous ownership does not imply the practical attributes of Western ownership? In considering this question, it is necessary to use two of the most important attributes of Western property, that is, the rights to exclude and alienate, as examples and explore how they apply within indigenous circles.

### **a. The Right of Exclusion in Indigenous Property**

For the present purposes, the right to exclude is taken to mean the right to determine the person(s) who can access particular property.<sup>163</sup> In discussing the role of exclusion right in Western property regime, Merrill submits: 'deny

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<sup>160</sup> See Nii A. Ollennu, *Principles of Customary Land Law in Ghana* (1962) 29.

<sup>161</sup> Ibid.

<sup>162</sup> This scenario is also possible under the Western property paradigm. See James E. Penner, *The Idea of Property in Law* (1997) 68.

<sup>163</sup> See Elinor Ostrom, 'Private and Common Property Rights' (2000) 8  
<<http://encyclo.findlaw.com/2000book.pdf>> at 22 June 2006.

someone the exclusion right and they do not have property.<sup>164</sup> This statement encapsulates the central position occupied by the exclusion right under the Western property regime. This is, however, based on the understanding that the person with the right to exclude is also invested, among others, with the rights to alienate, consume, and sub-divide such property.<sup>165</sup> In explaining this point Battiste and Henderson submit that the primary function of Western property is to define and protect the rights and preferences of right holders from external interference.<sup>166</sup> Consequently, the right to exclude others from any property would be pivotal in demarcating the boundaries between the title-holders and others.

The place of exclusion right within indigenous property regime must be examined within the context of the primary functions of indigenous property. Taking indigenous land as a basis for discussion, it was noted above that there exist special relationships, spiritual and cultural, between indigenous peoples and their lands. Part of the responsibility that stems from these relationships is the understanding that, in general terms, indigenous lands are to held in trust by each community for the present and future generations.<sup>167</sup> This is therefore a form of stewardship, which is then interwoven with other mythological and kinship relationships and responsibilities, all aimed at ensuring the survival and subsistence of each community.<sup>168</sup> The primary function of indigenous property is therefore the perpetuation of the peoples themselves.

Flowing from the above, since land is the primary source of subsistence and the medium that connects indigenous communities to their holistic

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<sup>164</sup> See Merrill above n 55, 730.

<sup>165</sup> Ibid.

<sup>166</sup> See Marie Battiste and James Y. Henderson, *Protecting Indigenous Knowledge and Heritage: A Global Challenge* (2000) 146.

<sup>167</sup> See Teresa Crowley, 'Culture and Common Property: Indigenous Tenure Issues within Western Society' (Paper presented at the 15<sup>th</sup> Annual Colloquium of the Spatial Information Research Centre, University of Otago, Dunedin, New Zealand, December 1-3 2003) at <[http://www.business.otago.ac.nz/SIRC05/conferences/2003/07\\_Crowley.pdf](http://www.business.otago.ac.nz/SIRC05/conferences/2003/07_Crowley.pdf)> at 22 June 2006.

<sup>168</sup> Ibid.

environment, it becomes clear why stewardship rather than exclusion is the norm. Another factor is the spiritual significance that lands possess within indigenous communities, which fact projects special respect for their lands and dictates special relationships between the lands and the people. This was affirmed by the Indigenous Treaty Council in noting that indigenous communities manifest 'a great love and respect for the sacred quality of the land which has given birth to and nourished the cultures of indigenous peoples.'<sup>169</sup> This respect for land dictates that land is treated not just as a resource, but as a medium that has sustained generations of indigenous peoples.

The above does not mean that there are no incidences of the right to exclude within indigenous societies. Such rights do exist, but, as exceptions rather than the rule. For instance, any community has a right to exclude another community from its resources. Also, in cases where an individual, a family or clan has been given exclusive rights over a particular resource, others could be excluded depending on terms of the rights granted. In summary, it could be said that while the right to exclude could exist within the indigenous property regime, it does not amount to '*sine qua non*'. In essence, within indigenous parlance, 'deny someone the right to exclusion' and property still exists.

## **b. The Right to Alienate**

The above discussions on the right to exclude also have bearing on the issue of the right to alienate within the indigenous property regime. This is because the preponderance of stewardships and custodianships in relation to indigenous land tenure presuppose that absolute and exclusive individual ownership rights are subordinated to the collective interests of the local communities. In essence, while local communities could alienate some aspects of their collective property when they so desire, individual members

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<sup>169</sup> See Burger above n 140.



are invested with such alienation right sparingly. This might also be part of the mechanism meant to prevent the abuse of such right by any individual community member.

The functions of indigenous property discussed above are also relevant in explaining why the right to alienate is not considered a 'keystone right'<sup>170</sup> by indigenous communities. The fact that indigenous peoples rely on their lands for their subsistence meant that access to such lands could not be the prerogative of few individuals: therefore the right to exclude is excluded as a primary property right. Similarly, the fact of dependency on the lands also implicates the need that ownership of such a vital resource could not be concentrated or an individual or few persons. Therefore, being custodians and not owners, the individuals concerned cannot alienate in any form. According to Crowley, this reasoning seems to have evolved from the philosophy that 'what we may never own may never be disposed of.'<sup>171</sup> This practice of emphasizing stewardships and not ownership guarantees that resources would not be sold, and the future generations would have their own means of subsistence.

In explaining the import of indigenous property ownership, Coker suggests that use of the term 'ownership' with respect to indigenous holdings is usually for the sake of convenience.<sup>172</sup> This is because it is very difficult to interpose the Western conception of property ownership (especially the ownership of land) to a holding under indigenous customary law.<sup>173</sup> This, too, results from the impossibility of being able to group together all the rights that flow from indigenous property holdings.<sup>174</sup> Consequently, it is usually considered more appropriate to indicate that a person(s) possesses rights over a particular resource(s), instead of imputing to such person(s)

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<sup>170</sup> This phrase is taken from Carol M. Rose, 'Propter Honoris Respectum: Property as Keystone Right' (1996) 71 *Notre Dame Law Review* 329. Also see the discussions above page 15.

<sup>171</sup> See Crowley above n 157.

<sup>172</sup> See G.B.A. Coker, *Family Property Among the Yorubas* (1966) 33.

<sup>173</sup> Ibid.

<sup>174</sup> Ibid.

ownership rights that are usually taken to inhere in the community.<sup>175</sup> The presupposition here is that in most cases, what could be properly termed ownership rights in indigenous property are mostly collectively held, and for their effectiveness, these rights are not often reducible to individual rights and entitlements.<sup>176</sup>

It might be difficult to defend the position that incidence of property ownership does not exist among indigenous peoples because it appears that it does. However, this should not be confused with the incident of Western property ownership, which imports different attributes and entitlements.<sup>177</sup> The incidents of indigenous property ownership are usually determined by the customary practices of the communities concerned, and it is conceivable that there could exist a form of holding that resembles Western ownership, but without the right, for instance, to alienate the property. Whether such property holding qualifies as 'ownership' is another question, since the term 'ownership,' in itself, imports different meanings for indigenous and non-indigenous audiences.

In total, any attempt to generally apply the attributes of Western property ownership to the regime of indigenous property without appreciating the peculiarities highlighted above will manifest obvious problems.<sup>178</sup> A few of these problems will be discussed below in the context of judicial attempts to interpret indigenous property principles. It should be noted that in most countries, the courts tend to treat indigenous property entitlements under 'Native' or 'Aboriginal' title. The propriety or otherwise of this practice is outside the scope of this chapter. However, what is clear is that demarcating 'Native' or 'Aboriginal' title to land as a basis for protecting indigenous

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<sup>175</sup> *Ibid.*

<sup>176</sup> See Leighton McDonald, 'Can Collective and Individual Rights Co-exist?' (1998) 22 *Melbourne University Law Review* 310, 316.

<sup>177</sup> See Coker above n 172, 33-34.

<sup>178</sup> See Angela R. Riley, 'Recovering Collectivity: Group Rights to Intellectual Property in Indigenous Communities' (2000) 18 *Cardozo Arts & Entertainment Law Journal* 175.

proprietary interests, appears not only insufficient, but seems to amount to the mistake of using Western parameters to protect indigenous interests.<sup>179</sup>

## 2.6. Judicial Perspectives

Although in recent years there has been an increase in the number of cases where the real attributes of indigenous property rights have been fully appreciated by the courts,<sup>180</sup> this had not been the general trend.<sup>181</sup> The earlier position used to be that indigenous patterns of property holding had confounded the courts, principally because of the courts' inability to align indigenous practices to the dominant Western ideas of property entitlements. But any attempt at such an alignment was bound to be very problematic, because indigenous property ideas and practices are reflective of their social and cultural practices, which differ in many ways from those in non-indigenous societies.<sup>182</sup> Therefore, any meaningful attempt to understand what 'indigenous property ideas' are, must of necessity, first dissect and understand indigenous customs and social institutions in order to ascertain the inherent inter-linkages that characterize their ways of life.<sup>183</sup> This will also help in highlighting other symbolical and spiritual meanings that indigenous peoples attach to some types or aspects of their property.<sup>184</sup>

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<sup>179</sup> See generally, Kent McNeil, 'A Question of Title: Has the Common Law Been Misapplied to Dispossess the Aboriginals' (1990) 19 *Monash University Law Review* 91; Howard R. Berman, 'The Concept of Aboriginal Rights in the Early Legal History of the United States' (1977) 27 *Buffalo Law Review* 637; Kent McNeil, 'Aboriginal Title and Aboriginal Rights: What's the Connection?' (1997) 36 *Alberta Law Review* 117; David J. Bloch, 'Colonizing the Last Frontier' (2004-2005) 29 *American Indian Law Review* 1; Peter Manus, 'Indigenous Peoples' Environmental Rights: Evolving Common Law Perspectives in Canada, Australia, and the United States' (2006) 33 *Boston College Environmental Affairs Law Review* 1.

<sup>180</sup> See for instance *Mabo v. Queensland (No. 2)* (1992) 175 CLR 1.

<sup>181</sup> See for example the decision in the U.S. case of *Johnson v. M'Intosh* (1823) 21 U.S. 8 Wheat 543, in Joseph W. Singer, 'Well Settled: The Increasing Weight of History in American Indian Land Claims' (1994) 28 *Georgia Law Review* 481.

<sup>182</sup> See Bryan, above n 3, 5.

<sup>183</sup> *Ibid.*

<sup>184</sup> See R. Goodland, 'Tribal Peoples and Economic Development: The Human Ecological Dimension' in John H. Bodley, *Tribal Peoples and Development Issues: A Global Overview* (1988) 391, 394.

In recent years, and with respect to cases that border on the determination of native title, a number of judicial determinations across several jurisdictions tend to show a good appreciation of these unique attributes of indigenous property regime. For instance, in alluding to these features in the Canadian case of *Delgamuukw v. British Columbia*,<sup>185</sup> Lamer C.J. observed that:

Aboriginal title is a right in land and, as such, is more than the right to engage in specific activities which may be themselves Aboriginal rights. Rather, it confers the right to use land for a variety of activities, not all of which need be aspects of practices, customs and traditions which are integral to the distinctive cultures of Aboriginal societies.<sup>186</sup>

In the much earlier case of *Amodu Tijani v. Secretary of Southern Nigeria*,<sup>187</sup> the Privy Council exhibited a clear understanding of the difficulties in attempting to generally apply Western property principles to non-Western situations. It was observed that indigenous land rights were both unique and theoretically dissimilar to notions of land ownership that existed under the English common law.<sup>188</sup> The Council warned of the dangers inherent in the idea of construing indigenous rights according to established common law notions.<sup>189</sup> It went further to state that:

Their Lordships make the preliminary observation that in interpreting the native title to land, not only in Southern Nigeria, but other parts of the British Empire, much caution is essential. There is a tendency, operating at times unconsciously, to render that title conceptually in terms, which are appropriate only to systems which have grown up under English law. But this tendency has to be held in check closely.<sup>190</sup>

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<sup>185</sup> (1997) 3 S.C.R. 1010.

<sup>186</sup> Ibid. 1080. For further comments on the nature of Aboriginal land title, see Anna Zalewski, 'From Sparrow to Van der Peet: The Evolution of a Definition of Aboriginal Rights' (1997) 55 *University of Toronto Faculty of Law Review* 435; Patrick Macklem, 'What's Law Got to Do With It? The Protection of Aboriginal Title in Canada' (1997) 35 *Osgoode Hall Law Journal* 125; Kate Stoeckel, 'Western Australia v. Ward & Ors' (2003) 25 *Sydney Law Review* 255.

<sup>187</sup> (1921) 2 A.C. 399.

<sup>188</sup> Ibid.

<sup>189</sup> Ibid.

<sup>190</sup> Ibid. 402- 403. See also, John Borrows and Leonard I. Rotman, 'The Sui Generis Nature of Aboriginal Rights: Does It Make a Difference?' (1997) 36 *Alberta Law Review* 9, 17-19.

The approach adopted by the Council reflected a clear understanding of the intricacies of indigenous tenurial regimes in these areas. However, in some other cases, such deep appreciation of the peculiar indigenous circumstances did not exist and the courts consequently arrived at different conclusions. The problems appeared to be that the courts in these latter instances adopted the either 'this' or 'that' attitude, without making allowances for what could be called 'hybrid property regimes' under which indigenous holdings could have been classified. The implication then was that once the indigenous property holdings did not meet the characteristics of the Western property institution, the courts were always in some difficulties in finding alternative platforms to base their findings.

The case of *Re Southern Rhodesia*<sup>191</sup> is illustrative on this point. In this decision, Lord Sumner expressed the Court's frustration while attempting to determine the real content of indigenous property interests. In his opinion:

It seems to be common ground that the ownership of the lands was 'tribal' or 'communal' *but what precisely that means remains to be ascertained*.<sup>192</sup> In any case it was necessary that the argument should go the length of showing that the rights, whatever they exactly were,<sup>193</sup> belonged to the category of rights of private property.<sup>194</sup>

The first point that comes out from the above quote is the phrase '...whatever they really were...' used by the Judge in describing the collective rights of the indigenous communities. The comments implied that the Judge had difficulties in comprehending the nature of indigenous property regime. In the circumstances, the Court required that the rights inherent within indigenous land tenure should be established to be compatible with Western property ideas. This was the case, even when the judge had acknowledged the collective (tribal) nature of indigenous land interests.

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<sup>191</sup> (1919) A.C. 211 (PC) in Brian Donovan, 'Common Law Origins of Aboriginal Entitlements to Land' (2003) *Manitoba Law Journal* 289, 301-303.

<sup>192</sup> Emphasis added.

<sup>193</sup> Emphasis added.

<sup>194</sup> See Donovan above n 191, 301-303.

In analysing this decision, a few comments could be made on the approach adopted by the Court. First, the Court found that indigenous land tenure systems were tribal or communal in nature. Therefore, such systems cannot be expected to manifest the characteristics of Western property regime. Secondly, as noted above, some of the key attributes of Western ownership, that is, the rights to use, to exclude others and to alienate, are not generally exercised by individuals within the indigenous property paradigm. Therefore, the attempt by the Court to make a determinative finding on the nature of indigenous land rights by relying on Western standard of property ownership is problematic.<sup>195</sup> However, the case reflects the inherent difficulty in attempting to fit indigenous property regime into the Western property paradigm, or *vice versa*. As the court in *Re Southern Rhodesia* further pointed out:

The estimation of the rights of Aboriginal tribes is always inherently difficult. Some tribes are so low in the scale of social organization that their usages and conceptions of rights and duties are not to be reconciled with the institutions or the legal ideas of civilized society.... On the other hand, there are indigenous peoples whose legal conceptions, though differently developed, are hardly less precise than our own. When once they have been studied and understood they are no less enforceable than rights arising under English law. Between the two there is a wide tract of much ethnological interest.<sup>196</sup>

The above statement by Lord Sumner has been criticized as not being definitive enough, and gives the impression that indigenous property rights are indeterminate and open-ended.<sup>197</sup> Even though the statement suggests that indigenous rights were to be interpreted exclusively by reference to the Western notions of 'rights', it also admits that some forms of indigenous legal conceptions 'were as precise' as English legal rules. The major issue here is

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<sup>195</sup> Ibid.

<sup>196</sup> Ibid. See also Gary D. Meyers and John Muganbwa, 'The Mabo Decision: Australian Aboriginal Land Rights in Transition' (1993) 23 *Environmental Law* 1203.

<sup>197</sup> See John Borrows and Leonard I. Rotman, 'The *Sui Generis* Nature of Aboriginal Rights: Does it Make a Difference' (1997) 36 *Alberta Law Review* 9, 16.

that when indigenous concepts are scrutinized by the standard of Western legal conceptions, there are bound to be problems of meanings and synchronization of terminologies. This was the problem faced by the court in the Australian case of *Milirrpum v. Nabalco Pty. Ltd*<sup>198</sup> where some of the principles in *Re Rhodesia* were adopted.

In the *Milirrpum* decision, one of the major issues before the Court was to determine whether indigenous land tenure was proprietary in nature. In arriving at its decision, the Court adopted and applied the attributes of Western ownership: the rights to use, exclude and alienate as a standard of analysis in determining indigenous proprietary interests.<sup>199</sup> The outcome of such an approach would have been fairly predictable. In stating the opinion of the Court on this aspect of the case, Blackburn, J. held:

I think that property, in its many forms, generally implies the rights to use or enjoy, the right to exclude others and the right to alienate.<sup>200</sup> I do not say that all these right must co-exist before there can be proprietary interest...But by this standard I do not think that I can characterize the relationship of the clan to the land as proprietary.<sup>201</sup>

The Court went further to observe that 'there is little resemblance between property, as our law,... understands the term... I must hold that these claims are not in the nature of proprietary interests.'<sup>202</sup> The obvious difficulty here was that the judge sought to establish similarities between indigenous property holdings and Western proprietary interests, and predictably could hardly find any. One reason for this is that the underlying philosophy of indigenous property regime emphasizes communal sustenance and subsistence,<sup>203</sup> and emphasizes inclusive as against exclusive rights. Another

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<sup>198</sup> (1971) 17 F.L.R. 141. Compare this with the decision of *Mabo v The State of Queensland* [No 2] (1992) 175 CLR 1. Also see generally, M.A. Stephenson and Suri Ratnapala, (eds) *Mabo: A Judicial Revolution:: The Aboriginal Land Rights Decision and its Impact on Australian Law* (1993).

<sup>199</sup> Ibid 272.

<sup>200</sup> Emphasis added.

<sup>201</sup> Ibid.

<sup>202</sup> Ibid 273.

<sup>203</sup> See Kenneth Maddock, *Your Land is Our Land: Aboriginal Land Rights* (1983) 181.

reason is that the spiritual nature of indigenous peoples' relationship with their lands made the alienation of property not an important factor in indigenous worldview.<sup>204</sup> The above conclusion reached by Blackburn J. was surprising because, early on in the case, the Court had found that:

the fundamental truth about the aboriginals' relationship to the land is that whatever else it is, it is a religious relationship ... There is an unquestioned scheme of things in which the spirit ancestors, the people of the clan, particular land and everything that exists on and in it, are organic parts of one indissoluble whole.<sup>205</sup>

This was an accurate finding on the nature of indigenous peoples' relationships with their lands, and it is not clear why the court was in difficulty in relation to the proprietary implications of such relationships.

However, the lack of appreciation of indigenous property regime in earlier cases seems to have reflected the uncertainty about indigenous issues at the time. For instance, it is trite that the international community did not pay any serious attention to indigenous issues until the 1980's. In the periods before the 1980's, there were minimal or no efforts in most countries for a clear articulation of the nature and principles of indigenous property regime. However, from the mid 1980's the situation started to change, and judicial pronouncements on indigenous property issues seems to reflect the changing paradigm.

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<sup>203</sup> See Kwamena Bentsi-Enchill, *Ghana Land Law: An Exposition, Analysis and Critique* (1964) 80 - 82. See also, Philip P. Howell, *A Manual of Nuer Law: Being an Account of Customary Law, Its Evolution and Development in the Courts Established by the Sudan Government* (1970) 179 - 181

<sup>204</sup> See Kenneth Maddock, *Your Land is Our Land: Aboriginal Land Rights* (1983) 181.

<sup>205</sup> See *Milirrpum v. Nabalco* above n 2, 167.



## 2.7. The Changing Paradigm

An important leap toward the global understanding of indigenous issues was recorded in 1982, with the establishment of the U.N. Working Group on Indigenous Populations (WGIP).<sup>206</sup> The WGIP was established as a subsidiary organ of the U.N. Sub-Commission on the Promotion and Protection of Human Rights (CPHR), and charged with the responsibility of helping to articulate and review global standards on indigenous issues.<sup>207</sup> The establishment of the WGIP was an added impetus in the quest to bring indigenous issues to international attention, and by implication, closer the national governments.

The activities of the WGIP led to increased representation for indigenous peoples within the U.N. system, and in 1995, the U.N. declared the first International Decade of the World's Indigenous Peoples.<sup>208</sup> Within the same periods, the *Draft Declaration on the Rights of Indigenous Peoples* was adopted in 1994.<sup>209</sup> Another proactive step for indigenous peoples followed in 2000, with the establishment of the Permanent Forum on Indigenous Issues (PFIS). The PFIS was established as an advisory body to the U.N. Economic and Social Council (ESC), to articulate the global interests of indigenous peoples within the U.N. system.<sup>210</sup> Finally, there was the appointment of a Special Rapporteur in 2001, to report on the situation of the human rights and fundamental freedoms of indigenous peoples. The progressive occurrence of these incidents seems to have contributed to increased awareness and better

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<sup>206</sup> See the 'Working Group on Indigenous Populations' at <http://www.iwgia.org/sw8632.asp> at 25 June 2006.

<sup>207</sup> Ibid.

<sup>208</sup> The second decade of the World's Indigenous Peoples runs from 1 January 2005 to 2015. See the 'International Decades of the World's Indigenous Peoples (1995-2004)' at <http://www.unhchr.ch/indigenous/decade.htm> at 25 June 2006.

<sup>209</sup> On the 23 June 2006, the U.N. Human Rights Council (HRC) finally adopted the Draft Declaration and urged the UN General Assembly to adopt same. This will remove the 'draft' status from the Declaration. See Ibid.

<sup>210</sup> See the 'International Decades of the World's Indigenous Peoples (1995-2004)' above n 239.

understanding of the nature of indigenous rights generally, and indigenous property regime in particular, in several countries. This is reflected in the change in judicial attitude with respect to the interpretation of the nature of indigenous property rights from the early 1990's.

### 2.7.1. Changing Judicial Interpretations

From the early 1990's, courts in different countries appear to have started to manifest better understanding of the intricate nature and principles of indigenous property regime. Even though this development was restricted to a few countries at the earlier stages, it appears to be assuming the norm of general practice, rather than the exception. A few instances of this shifting trend will suffice here.

In the leading case of *Mabo v. Queensland (No. 2)*<sup>211</sup> the High Court of Australia, in explaining the nature of property holding of the Meriam peoples, affirmed, among other things, that the Meriam people had traditionally 'asserted an exclusive right to occupy the Murray Islands and, as a community, held a proprietary interest in the Islands...'<sup>212</sup> In consequence of this finding, the Court held further that, 'native title has its origin in and is given its content by the traditional laws...and...traditional customs observed by the indigenous inhabitants...'<sup>213</sup> In view of this, it was affirmed that the nature and incidents of indigenous interests in land must be determined by reference to indigenous laws and customs.<sup>214</sup>

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<sup>211</sup> (1992) 175 CLR 1.

<sup>212</sup> Ibid 61.

<sup>213</sup> Ibid 42.

<sup>214</sup> Ibid.

Notwithstanding few other existing precedents on the issue,<sup>215</sup> the Mabo Court's recognition of the role of indigenous customary laws and traditions in determining the nature of indigenous proprietary interests had instant global impact.<sup>216</sup> Despite its limitations,<sup>217</sup> the Mabo decision essentially became the global icon for indigenous rights' activism.<sup>218</sup> An important aspect of the Court's decision was the recognition that indigenous property interests could be in the nature of 'an entitlement of an individual,...band or tribe, to a limited special use of land in a context where notions of property in land and distinctions between ownership, possession and use are all but unknown.'<sup>219</sup> It was noted further that such interests could be communal proprietary interests,<sup>220</sup> which comments finally correct the opinion in the *Milirrpum* decision on this issue.

A similar deep perception of the nature of indigenous proprietary interests was manifested in the case of *Fejo v. Northern Territory*.<sup>221</sup> In this case, after

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<sup>215</sup> Among, others, the Court relied on the earlier cases of *Amodu Tijani v. Secretary, Southern Nigeria* (1921) 2 A.C. 399; *Oyekan v. Adele* (1957) 1W.L.R. 876; *Attorney General Quebec v. Attorney General Canada* (1921) 1 A.C. 401; *Sunmonu v. Raphael* (1927) AC 883; *Calder v. Attorney General British Columbia* (1973) S.C.R. 416.

<sup>216</sup> See generally, Gary D. Meyers and John Mugambwa, 'The Mabo Decision: Australian Aboriginal Land Rights in Transition' (1993) 23 *Environmental Law* 1203; Peter Butt and Robert Eagelson, *Mabo, Wik and Native Title* (1998) 1-13; Henry Reynolds, *Aboriginal Sovereignty: Three Nations, One Australia?* (1996); Nehal Bhuta, 'Mabo, Wik and the Art of Paradigm Management' (1998) 22 *Melbourne University Law Review* 24; Gilda C. Rodriguez, *Wik Peoples v. State of Queensland: A Restrained Expansion of Aboriginal Land Rights* (1998) 23 *North Carolina Journal of International Law and Commercial Regulation* 711; Michael Legg, 'Indigenous Australians and International Law: Racial Discriminations, Genocide and Reparations' (2002) 20 *Berkeley Journal of International Law* 387; Julie Cassidy, 'Aboriginal Title: An Overgrown and Poorly Excavated Archeological Site?' (1998) 10 *International Legal Perspectives* 39; Amy Sender, 'Australia's Example of Treatment Towards Native Title: Indigenous Peoples' Land Rights in Australia and the United States' (1999) 25 *Brooklyn Journal of International Law* 521; Maureen Tehan, 'Customary Title, Heritage Protection, and Property Rights in Australia: Emerging Patterns of Land Use in the Post-Mabo Era' (1998) 7 *Pacific Rim Law and Policy Journal* 765.

<sup>217</sup> One of the limitations of the Mabo decision was the decision that for their effectiveness, indigenous interests in land are to be recognized by Common Law.

<sup>218</sup> See generally Chidi Oguamanam, 'Protecting Indigenous Knowledge in International Law: Solidarity Beyond the Nation-State' (2004) *Law/Text/Culture* 191; Kent McNeil, 'Self-Government and the Inalienability of Aboriginal Title' (2002) 47 *McGill Law Journal* 473.

<sup>219</sup> See *Mabo v. Queensland* (No. 2) above n 242, 106.

<sup>220</sup> *Ibid.*

<sup>221</sup> (1998) 159 ALR 483.

examining the nature of indigenous proprietary interests, the Court found that, 'aboriginal people who occupied the...area...functioned under elaborate traditions, procedures, laws and customs which connected them to the land.'<sup>222</sup> Furthermore, it was found that 'rights and responsibilities in relation to the land were...distributed among subgroups of the community according to traditional laws and customs.'<sup>223</sup>

Apart from Australia, some other countries have also demonstrated enhanced understanding of indigenous property regime, in some cases, earlier than the Mabo decision. For instance, in Canada, the 1973 Supreme Court's decision in *Calder v. Attorney General of British Columbia*<sup>224</sup> was definitive about the nature of indigenous property entitlements, while affirming that indigenous peoples could re-claim title to their lands.<sup>225</sup> The Calder decision also contributed in some respects to the creation of the Nunavut territory for the Inuits of Northern Canada in 1993.<sup>226</sup> In reacting to the varied descriptions of indigenous peoples' interests in their lands in Canada, Judson J. opined that:

the fact is that when the settlers came, the Indians were there, organized in societies and occupying the land as their forefathers had done for centuries. This is what Indian title means and it does not help one in the solution of this problem to call it a 'personal or usufructuary right.'<sup>227</sup>

In *Guerin v. R.*,<sup>228</sup> the Supreme Court of Canada considered the nature of indigenous proprietary rights and declared that they were *sui generis* rights. In

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<sup>222</sup> Ibid 514.

<sup>223</sup> Ibid 529.

<sup>224</sup> (1973) S.C.R. 313.

<sup>225</sup> See generally, Alexandra Kersey 'The Nunavut Agreement: A Model for Preserving Indigenous Rights' (1994) 11 *Arizona Journal of International and Comparative Law* 429, 435.

<sup>226</sup> See generally, Kevin R. Gray, 'The Nunavut Land Claims Agreement and the Future of Eastern Arctic: The Uncharted Path to Effective Self-Government' (1994) 52 *University of Toronto Faculty of Law Review* 300; Donald Purich, *The Inuit and Their Land: The Story of Nunavut* (1992); Laureen Nowlan-Card, 'Public Government and Regulatory Participation in Nunavut: Effective Self-Government for the Inuit' (1996) 5 *Dalhousie Journal of Legal Studies* 31.

<sup>227</sup> See *Calder v. Attorney General of British Columbia* above n 255, 328.

<sup>228</sup> (1984) 13 D.L.R. (4<sup>th</sup>) 321 (S.C.C.).

this respect, in *Delgamuukw v. British Columbia*,<sup>229</sup> the Court expatiated on the import and extent of the *sui generis* nature of indigenous rights, and held that:

Jurisprudential analysis of the concepts underlying "rights" in common law or western legal thought is of little or no help in understanding the rights now held by aboriginal peoples.... In short, it is not only aboriginal title to land *that is sui generis*, all aboriginal rights are *sui generis*.<sup>230</sup>

The term *sui generis* connotes uniqueness and difference, and is translated to mean 'of its own kind or class.'<sup>231</sup> In essence, the confirmation of indigenous rights as *sui generis* rights implies the recognition of the fact that these rights stem from alternative sources that reflect the unique historical and cultural attributes of indigenous communities.<sup>232</sup> However, even though the *sui generis* concept emphasizes the distinct attributes of indigenous rights, it does not totally ignore the areas of similarities between indigenous and non-indigenous interests.<sup>233</sup> The dynamism of indigenous proprietary practices imply that diverse interests could be accommodated within them, even though other formal non-indigenous regimes find it difficult to accommodate indigenous practices.

Notwithstanding the above discussions, it is perhaps surprising that, in a country like New Zealand, the nature and extent of indigenous interests in land is not yet clear. In New Zealand, the *Treaty of Waitangi* 1840 has been the major basis for the relationship between the Maoris and the Crown. Article 2 of the Treaty provides, *inter alia*:

Guarantees...respective families and individuals thereof the full exclusive and undisturbed possession of their Lands and Estates

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<sup>229</sup> (1993) 104 D.L.R. (4<sup>th</sup>) 470. See also *R. Van der Peet* (1996) 4 C.N.L.R. 177; *R v. Sparrow* (1990) 70 D.L.R. (4<sup>th</sup>) 385 (S.C.C.)

<sup>230</sup> *Ibid* 643-644.

<sup>231</sup> See John Borrows and Leonard I. Rotman, 'The Sui Generis Nature of Aboriginal Rights: Does it Make a Difference?' (1997) 36 *Alberta Law Review* 9, 10.

<sup>232</sup> *Ibid* 11.

<sup>233</sup> *Ibid*.

Forests Fisheries and other properties which they may collectively or individually possess so long as it is their wish and desire to retain the same in their possession.<sup>234</sup>

It has been variously argued that the import of this provision, and several other provisions of the Treaty, has been the basis for the confusion that besets the nature and content of indigenous rights in New Zealand.<sup>235</sup> The situation was not helped by the early decision of *R. v. Symonds*,<sup>236</sup> which, while confirming indigenous peoples' proprietary interests in their lands, did not do much in describing the nature of such interests.<sup>237</sup> However, the recent case of *Attorney-General v. Ngati Apa*<sup>238</sup> suggests that New Zealand courts appear to be adopting the Canadian jurisprudence of treating indigenous proprietary interests as *sui generis* rights.<sup>239</sup>

Finally, it should be noted that the changing judicial attitude to, and the better understanding of, the nature of indigenous property interests have not decreased the tensions in this area. These tensions are usually manifest when attempting to synchronize indigenous rights and states' legislation that seek to regulate the exercise of such rights domestically. In explaining the source of these tensions in relation to the application of the *Native Title Act* 1993,<sup>240</sup> the High Court of Australia in *Western Australia v. Ward and Others*<sup>241</sup> observed that the relationship between indigenous peoples and their lands is

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<sup>234</sup> The *Treaty of Waitangi* 1840. For the text of the Treaty, see <http://www.treatyofwaitangi.govt.nz/treaty/index.php> at 28 June 2006.

<sup>235</sup> See Jacqueline F. Pruner, 'Aboriginal Title and Extinguishment Not So Clear and Plain: A Comparison of the Current Maori and Haida Experiences' (2005) 14 *Pacific Rim Law and Policy Journal* 253, 264-6; Dora Alves, *The Maori and the Crown: An Indigenous People's Struggle for Self-Determination* (1999).

<sup>236</sup> (1847) N.Z.P.C.C. 387 cited *Ibid*.

<sup>237</sup> For much earlier cases that dealt with other areas of indigenous interests in New Zealand, see Ani Mikaere and Stephanie Milroy, 'Treaty of Waitangi and Maori Land Law' (2001) 3 *New Zealand Law Review* 379.

<sup>238</sup> (2003) 3 N.Z.L.R. 643.

<sup>239</sup> The case adopted the principles enunciated in the Canadian case of *Delgamuukw v. British Columbia* (1997) 3 S.C.R. 1010.

<sup>240</sup> The *Native Title Act* 1993 as amended. For the text of the Act, see <http://scaleplus.law.gov.au/html/pasteact/2/1142/top.htm> at 28 June 2006.

<sup>241</sup> (2002) 191 A.L.R. 1.

essentially spiritual.<sup>242</sup> Therefore, it is difficult to express such a spiritual relationship in terms of 'rights and interests,'<sup>243</sup> which would amount to translating the spiritual into the legal. More importantly, the Court observed that trying to structure indigenous interests to fit into the requirements of the *Native Title Act* would result in the 'fragmentation of an integrated view of the ordering of affairs into rights and interests which are considered apart from the duties and obligations which go with them.'<sup>244</sup> Since most indigenous rights, including proprietary rights, always import some responsibilities, it is submitted that any attempt to bring such rights under the purview of common law recognition as a condition for enforcement, will detract from their *sui generis* nature.<sup>245</sup> This will in turn perpetuate the uncertainty surrounding the definitive articulation of the nature of indigenous property and its entitlements.

## 2.8. Conclusion

This chapter has examined the concept of 'property' and its major attributes from both the Western and indigenous peoples' perspectives. In the end, what constitutes 'property' is still imprecise. As noted at the beginning of this chapter, the difficulty inherent in delineating the ambit and content of property and property rights is not peculiar to this work, and the issues surrounding property have engaged the attention of scholars for centuries.<sup>246</sup>

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<sup>242</sup> See Borrows and Rotman above n 190, 15, citing Blackburn J. in *Milirrpum and Nabalco Pty Ltd*, (1971) 17 F.L.R. 141, 167.

<sup>243</sup> Ibid.

<sup>244</sup> Ibid.

<sup>245</sup> Section 233(1)(c) of the *Australian Native Title Act* 1993 requires that the communal or individual rights and interests of indigenous peoples in their lands or waters be 'recognised by the common law of Australia.' In South Africa, for instance, indigenous customary laws form part of the Constitution and are not viewed through the perceptions of the common law. See Lisa Strelein, 'From Mabo to Yorta Yorta: Native Title Law in Australia' (2005) 19 *Washington University Journal of Law and Policy* 225, 247. See generally, Carlos S. Lopez, 'Reformulating Native Title in Mabo's Wake: Aboriginal Sovereignty and Reconciliation in Post-Centenary Australia' (2003) 11 *Tulsa Journal of Comparative and International Law* 21.

<sup>246</sup> See for instance, Jane B. Baron, 'The Expressive Transparency of Property' (Review) (2002) 102 *Columbia Law Review* 208; Thomas W. Merrill, 'The Landscape of Constitutional Property

It was observed above that the Western concept of property is difficult to define. This is because the concept has numerous philosophical undertones and has evolved through the ages with changing meanings, significance and entitlements.<sup>247</sup> However, what appears to be the constant denominator in Western property regime has been the focus on conferring property entitlements on the right holder(s) in the form of property rights. The most fundamental function of these property rights is to confer on the rights holders the right to use, derive income, exclude others and alienate the property over which it is held. The exercise of this right in full translates to the right of ownership. As noted, this is within the context of some limitations on property rights for several purposes, including the fair use exception for copyrighted materials and public policy purposes.

The regime of indigenous property is quite different, and conceptually, there might not be anything within this regime that matches the Western concept of property. This is based on the fact that Western property is conceived as a bundle of rights in favour of the right holder(s), where full ownership rights implicate the exclusion of others from the property in issue. This is what Professor McGregor has called the 'absolutist view of property rights.'<sup>248</sup> According to McGregor, this view<sup>249</sup> 'defines and circumscribes the private realm within which individuals may pursue their own plans and satisfy their own preferences.'<sup>250</sup> In this sphere, the underlying premise is that property

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(2000) 86 *Virginia Law Review* 885; Joseph W. Singer, *Entitlement: The Paradoxes of Property* (2000); Joseph W. Singer, *Property Law* (2<sup>nd</sup> ed. 1997); Joan Williams, 'The Rhetoric of Property' (1998) 83 *Iowa Law Review* 277; Laura S. Underkuffler-Freund, 'Property: A Special Right' (1996) 71 *Notre Dame Law Review* 1033.

<sup>247</sup> For a detailed discussion on the allocation of entitlements and liabilities from the perspective of the Western property regime, see generally Guido Calabresi and Douglas A. Melamed, 'Property Rules, Liability Rules and Inalienability: One View of the Cathedral,' (1972) 85 *Harvard Law Review* 1089.

<sup>248</sup> See Joan L. McGregor, 'Property Rights and Environmental Protection: Is this Land Made for You and Me?' (1999) 31 *Arizona State Law Journal* 391, 393-394.

<sup>249</sup> The author informs that this position is well defended by Professor Epstein in Richard Epstein, *Takings: Private Property and the Power of Eminent Domain* (1985).

<sup>250</sup> See McGregor above n 248, 394.



owners are immune from public or collective concerns or responsibilities, and are able to satisfy their own preferences through market exchange.<sup>251</sup> This trend, in simple terms, encapsulates the individualistic interests that this view of property represents.

In contrast to the above, indigenous property, even though complex in nature, is primarily structured as a *sui generis* regime consisting of 'bundle of relationships.' As noted above, these relationships exist as complex and interconnected sets of individual and communal rights, privileges and responsibilities with respect to the resources within any particular indigenous community. In these relationships, the rights of individuals, the family, clan, and the community are accommodated with certain limitations in favour of the community's general interest. This system of property entitlement has sometimes posed serious problems for the courts when considering the nature of indigenous proprietary interests, especially when the standards of Western property are used as yardsticks.<sup>252</sup>

The *sui generis* nature of indigenous property rights underlies the fact that there are possibilities for variations in the content of these rights across indigenous and local communities. In this respect, the social and cultural systems of different local communities would then play pivotal roles in determining the nature of property entitlements that the communities assign to their members. This is possible because, according to Carrillo, indigenous property systems are dynamic and not monolithic systems when compared to, for instance, common law based property regime.<sup>253</sup> This dynamism of the system permits divergence across communities and the accommodation of diverse interests.

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<sup>251</sup> Ibid.

<sup>252</sup> Some of the problems inherent in adopting this method is discussed in Brian Donovan, 'Common Law Origin of Aboriginal Entitlement to Land' (2003) 29 *Manitoba Law Journal* 289.

<sup>253</sup> See Jo Carrillo, 'Disabling Certitudes: An Introduction to the Role of Mythologies of Conquest in Law' (2000) 12 *Journal of Law and Public Policy* 13, 28.

The structure of indigenous property as a bundle of relationships is fundamentally different from Western property. This difference relates to the key attributes of Western property rights, that is, the rights of use, exclusion and alienation, that form the bedrock of the Western property entitlements. Among these incidents of property, it is the right of use that could be said to be of primary significance to indigenous property regime. Even though the rights of exclusion and alienation can be part of indigenous property systems, they do not assume the same central place that they occupy under the Western property regime.

The difference in the basic structures of Western and indigenous property regimes also reflects the nature of their functions within the different societies where they evolved. In the overall analysis, it could be said that when granting full entitlements, the Western property regime could confer full ownership rights on the right holders, which in effect will exclude external interference in such property. On the other hand, the indigenous property regime is structured primarily to ensure the survival and subsistence of the members of the relevant communities, by emphasizing their collective interests in property above individual preferences. This is despite the fact that in some circumstances individual exclusive property rights are permissible within the norms established by these communities.

Finally, from the totality of the above discussions, it appears that what constitutes 'property,' its entitlements, and limitations within different societies, is better described than defined. It is these entitlements that define the types of relationships that are possible among entities within each society in relation to property holdings.<sup>254</sup> In essence, although the attributes of property in most societies with similar values and socio-cultural relations always possess similar characteristics, they do not have to be exactly identical in nature. This explains why it is possible to have property entitlements

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<sup>254</sup> See Byran above n 3, 6.

within indigenous communities that vary in detail from one community to another. This seems to highlight the effect of the social systems of each society on the nature of their property entitlements. In this respect, Professor Singer observes that, 'property is not meaningful unless it is an entitlement and it cannot mean what it is unless it is a social system.'<sup>255</sup>

In concluding, it seems safe to say that the ultimate deduction here remains that the Western property regime seems primarily structured to reward the right holders, usually to the exclusion of others. On the other hand, the indigenous property regime focuses primarily on satisfying the collective subsistence needs of the local communities. As noted in chapter one, this collectivity pervades the whole essence of indigenous life and indigenous knowledge systems. This notwithstanding, either of the property regimes sometimes have some elements of the other's primary function, even if to a limited extent. For instance, the Western property regime could, through the instrumentality of 'public property,' act to primarily foster the interests of the members of the public. On the other hand, the indigenous property regime could also provide for individual property entitlements. In all, it must be said that the issues of property and property rights, both Western and indigenous, are complex issues for scholarly discourse.

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<sup>255</sup> See Joseph W. Singer, 'Rent' (1997) 39 *Boston College Law Review* 1, 37-38.

## **Chapter Three**

### **Accessing Biological Diversity and Indigenous Knowledge Systems: Bioprospecting**

## Chapter Three

### Accessing Biological Diversity and Indigenous Knowledge Systems: Bioprospecting

#### 3. Introduction

Biodiversity is like a library. The species are the books and they contain a vast amount of genetic information. Libraries are useful because their books contain information that may be of immediate use, important in the future or simply contribute to the cultural wellbeing of the society. But in the biodiversity library, vast quantities of books are hidden, others are in storage waiting to be catalogued, while only a small portion have been read.<sup>1</sup>

The important position occupied by biodiversity in terms of maintaining the general balance in the ecosystem cannot be over-emphasized.<sup>2</sup> In the same respect, the proven commercial utility of some components of biodiversity, particularly in areas allied to food, cosmetics and medicine have been widely acknowledged.<sup>3</sup> However, the diverse issues relating to biodiversity cannot be discussed in isolation as they are inextricably linked to the economic development and environmental management practices of the territories where the biodiversity resources are located.<sup>4</sup>

The role of indigenous knowledge systems in the area of access to biodiversity resources is important in several respects. The issue of access in the present context relates to the access activities of non-indigenous persons or entities,

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<sup>1</sup> See Andrew J. Beattie (ed), *Biodiversity: Australia's Living Wealth* (1995) 16.

<sup>2</sup> See Julie A. Weis, 'Eliminating the National Forest Management Act Diversity Requirement as a Substantive Standard' (1997) 24 *Environmental Law* 641, 641-642.

<sup>3</sup> See Michael C. Blumm and George Kimbrell, 'Flies, Spiders, Toads, Wolves, and the Constitutionality of the Endangered Species Act Take Position' (2004) 34 *Environmental Law* 309, 355. See also Darrell Posey and Graham Dutfield, *Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities* (1995) 13-37.

<sup>4</sup> See Lakshman D. Guruswamy and Jeffrey A. McNeely (eds), *Protection of Global Biodiversity: Converging Strategies* (1998) 115.

since indigenous communities have their own internal rules for resource usage and inter-community exchanges of knowledge. The role of indigenous knowledge has become even more important with the resurgent global interests in the medicinal potentials of plant-based sources for pharmaceutical products.<sup>5</sup> The nexus between indigenous knowledge systems and bioprospecting rests on the fact that indigenous knowledge provides useful leads in assisting to identify key elements of pharmacological value in medicinal plants for scientific research.<sup>6</sup> In this way, the time spent by researchers in conducting scientific analysis to determine medicinal utility of plant products is drastically reduced.<sup>7</sup> This helps researchers to focus on biodiverse products with proven traditional medicinal uses, and potentially increases chances of success for such researches.<sup>8</sup> The role played by indigenous knowledge is therefore crucial to the whole process.

In general, the term 'biological diversity' (biodiversity) refers to the total collection of varieties of 'all life forms - the different plants, animals and micro-organisms, the genes they contain and the ecosystems of which they form a part.'<sup>9</sup> Article 2 of the *Convention on Biological Diversity* 1992<sup>10</sup> (the CBD) defines 'biodiversity' as the 'variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part...' This definition also includes the diversity that occurs 'within species, between species and of ecosystems.'<sup>11</sup> In supplementing this definition, article 2 of the CBD defines the term 'ecosystem'

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<sup>5</sup> See Shane Greene, 'Indigenous Peoples Incorporated? Culture as Politics, Culture as Property in Pharmaceutical Bioprospecting' (2004) 45 *Current Anthropology* 211, 213.

<sup>6</sup> See the Genetic Resource Action International (GRAIN) and Kalpavriksh Environmental Action Group (KV) 'Traditional Knowledge of Biodiversity in Asia-Pacific' (2002) at <<http://www.grain.org/briefings/?id=97>> at 22 June 2006.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

<sup>9</sup> See Michael Davis, 'Biological Diversity and Indigenous Knowledge' Research Paper 17 *Parliament of Australia, Library* (1997-1998) 3 at <<http://www.aph.gov.au/LIBRARY/pubs/RP/1997-98/98rp17.htm>> at 15 April 2005.

<sup>10</sup> The CBD was negotiated at the Earth Summit, Rio de Janeiro, Brazil 1992, and has been signed by 178 countries. For the text of the CBD, see <<http://www.biodiv.org/convention/articles.asp>> at April 15 2005.

<sup>11</sup> See Davis above n 9.

as 'a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit.'<sup>12</sup> In essence, biodiversity is a complex body of intertwined components that form part of the general ecosystem. However, it is important to note that this description of biodiversity is not exhaustive, and care must be taken to avoid any over-generalizations or under-representations of the term.<sup>13</sup>

In terms of scope and content, the term biodiversity, which is also used as a synonym for the 'variety of life',<sup>14</sup> encompasses all levels of species diversity.<sup>15</sup> This includes the genetic variability that exists among members of a given specie (genetic diversity), the abundance and richness of all species in a given area (species diversity), and the variety of ecosystems and their interrelated patterns (ecosystem diversity).<sup>16</sup> In the present context, the term biodiversity will be used to exemplify the interdependency and dynamism that exist among all plants and animals species, that is, ecosystems diversity.<sup>17</sup> This dynamism could be seen between and within different species of plants and animals,<sup>18</sup> embracing a large number of living conditions that range from the simple to the complex.<sup>19</sup> In its essential terms, therefore, the term biodiversity describes the number, the variety and variability of all living organisms.<sup>20</sup>

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<sup>12</sup> Ibid.

<sup>13</sup> See generally, Cynthia Carlson, 'NEPA and the Conservation of Biological Diversity' (1988) 19 *Environmental Law* 15.

<sup>14</sup> See Kevin J. Gaston, 'What is Biodiversity' in Kevin J. Gaston (ed), *Biodiversity: A Biology of Numbers and Difference* (1996) 1.

<sup>15</sup> See Klaus Bosselmann, 'Plants and Politics: The International Legal Regime Concerning Biotechnology and Biodiversity' (1996) 7 *Colorado Journal of Environmental Law and Policy* 111, 112.

<sup>16</sup> See Philippe Sands, *Principles of International Environmental Law: Frameworks, Standards and Implementation* (vol. 1 1995) 368. See also Francesca Ortiz, 'Biodiversity, the City and Sprawl' (2002) 82 *Boston University Law Review* 145, 150.

<sup>17</sup> See James A. Siemans, 'A "Hard Look" at Biodiversity and the National Forest Management Act' (1992) 6 *Tulane Environmental Law Journal* 157.

<sup>18</sup> See Beattie above n 1, 17.

<sup>19</sup> See Edward O. Wilson, *The Diversity of Life* (1994) 175.

<sup>20</sup> See the World Conservation Monitoring Centre: *Global Biodiversity: The Status of the Earth's Living Resources* 1992 (1990) 17.

Notwithstanding the above representations, it should be noted that biodiversity means much more than the variety of species, as it also encompasses the whole expression of life on earth.<sup>21</sup> It is the essential element for the maintenance of human, plant and animal species on earth, and scientists and academics have acknowledged that the preservation of biodiversity is vital for an ecologically sustainable society.<sup>22</sup> This is because a large proportion of humanity derives much of its food, medicines, and industrial products from both domesticated and undomesticated components of biodiversity.<sup>23</sup> Biodiversity is also an important part of the natural environmental processes that are beneficial, yet often grossly undervalued, for instance, water purification, soil fertilization, and groundwater recharge.<sup>24</sup> It could therefore be said that biodiversity represents life in its various ramifications.

This chapter will discuss issues relating to access to biodiversity and indigenous knowledge systems and will act as foundation for the continuing discussions in the next two chapters. It will further explore the manner in which the current increased global interests in various aspects of biodiversity, especially those related to indigenous knowledge systems, has rubbed-off on the way various states and communities have dealt with access to these resources. The aim is to explore how the increase in bioprospecting activities has affected the way that local communities treat their biodiversity resources in terms of access.

More specifically, this chapter will concentrate on issues surrounding the manner in which access to biodiversity is achieved, especially the areas of

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<sup>21</sup> See Ariel E. Lugo, 'Biodiversity and Public Policy: The Middle of the Road' in Guruswamy and McNeely above n 4, 34.

<sup>22</sup> See Neil Gunningham and Mike D. Young, 'Toward Optimal Environmental Policy: The Case of Biodiversity Conservation' (1997) 24 *Ecology Law Quarterly* 243, 247.

<sup>23</sup> Ibid.

<sup>24</sup> Ibid.



biodiversity that impact on indigenous knowledge systems.<sup>25</sup> This access process which is commonly referred to as 'biodiversity prospecting' (bioprospecting) often involves extensive interactions between the prospective bioprospectors and several indigenous peoples and local communities.<sup>26</sup> Over the years, these interactions have resulted in some forms of close relationships involving an extended degree of collaborations between the states and indigenous groups on one hand, and resource prospectors and these communities on the other.<sup>27</sup> As noted above, the knowledge of indigenous communities has helped to augment the effectiveness of research processes in pharmaceutical research. However, along the line, such collaborations can result in disagreements between the parties. This makes issues relating to bioprospecting activities, especially those about consent or the absence thereof, topics for sustained scholarly discourse.<sup>28</sup> These issues relating to appropriate consent for bioprospecting and the modalities for access will be discussed in the next chapter.

This chapter deals in detail with the general conceptual aspects of bioprospecting, and the roles of local communities in this respect. The main objective is to explore how bioprospecting activities have affected local communities in relation to the resources that are required for their livelihoods and cultural expression. This is in the context of the earlier observations in the preceding chapters of this work, that the interlinkages between indigenous knowledge systems, property, and biodiversity are strong and enduring. Considering that bioprospecting activities usually involve non-indigenous

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<sup>25</sup> Although this might seem a tenuous distinction since in some respects, biodiversity and indigenous knowledge systems cannot be separated for purposes of distinct discussions. The distinction here is only for purposes of convenience.

<sup>26</sup> See Michael Davis, 'Indigenous Peoples and Intellectual Property Rights' Research Paper 20 1996-1997 *Parliament of Australia Library* 1997 at

<<http://www.aph.gov.au/library/pubs/RP/1996-97/97rp20.htm>> at 22 April 2005.

<sup>27</sup> See Eric Mathur et al., 'An Overview of Bioprospecting and the Diversa Model' (2004) *IP Strategy Today* at <<http://www.biodevelopments.org/ip.>> at 22 April 2005.

<sup>28</sup> See generally Rekha Ramani, 'Market Realities V. Indigenous Equities' (2001) 26 *Brooklyn Journal of International Law* 1147; Christopher J. Hunter, 'Sustainable Bioprospecting: Using Private Contracts and International Legal Principles and Policies to Conserve Raw Medicinal Materials' (1997) 25 *Boston College Environmental Affairs Law Review* 129.

entities, they are bound to create conflicts of interest within local communities: with local communities needing to protect their valuable resources from depletion, and resource prospectors requiring valuable resources for diverse purposes. Sustainable bioprospecting activities have to deal effectively with these interests.

### 3.1. Bioprospecting in Context

Broadly speaking, bioprospecting is a term used to describe the search for wild or domesticated products of biodiversity as valuable genetic material, or the general search for economically useful products from natural sources such as plants, fungi, microbes and animals.<sup>29</sup> In engaging in bioprospecting activities, the ultimate goal for most prospectors is usually the same: to locate bioactive compounds contained in natural sources that could be used in developing useful products for medicinal, nutritional or other desired purposes.<sup>30</sup> The general consensus is that the process of bioprospecting has been on-going in various forms for centuries and will continue into the distant future.<sup>31</sup> Bioprospecting activities will continue to expand because it is now generally acknowledged that the task of fully understanding all the medicinal uses to which plants, animals and other genetic materials may be put is a continual, rather than a finite process.<sup>32</sup>

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<sup>29</sup> See John R. Adair, 'The Bioprospecting Question: Should the United States Charge Biotechnology Companies for the Commercial Use of Public Wild Genetic Resources?' (1997) 24 *Ecology Law Quarterly* 131, 137; Jean-Frederic Morin, 'Les Accords de Bioprospection Repondent-Ils aux Objectifs de la Convention sur la Diversité Biologique?' (2003) 34 *Revue de Droit Université de Sherbrooke* 307.

<sup>30</sup> See Edgar J. Asebey and Jill D. Kempenaar, 'Biodiversity Prospecting: Fulfilling the Mandate of the Biodiversity Convention' (1995) 28 *Vanderbilt Journal of Transnational Law* 703, 706. See also J.M. Spectar, 'Patent Necessity: Intellectual Property Dilemmas in the Biotech Domain and Treatment Equity for Developing Countries' (2002) 27 *Houston Journal of International Law* 227, 230.

<sup>31</sup> See Michael A. Gollin, 'Biopiracy: The Legal Perspective' at <<http://www.actionbioscience.org/biodiversity/gollin.html>> at April 25 2005.

<sup>32</sup> See Christopher J. Hunter, 'Sustainable Bioprospecting: Using Private Contracts and International Legal Principles and Policies to Conserve Raw Medicinal Materials' (1997) 25 *Boston College Environmental Affairs Law Review* 129, 168-169.

In contemporary practice, the act of bioprospecting has sometimes been given a more socially-responsible content and has further been allied to the general duty of promoting human health, enhancing economic development and conserving the biodiversity of the resource-holding states, groups and communities.<sup>33</sup> For instance, it is believed that simpler rules for bioprospecting would assist in the early discovery of cures for pandemics like malaria, cancer and the Acquired Immune Deficiency Syndrome (AIDS).<sup>34</sup> This is because freer access to potential raw materials for research would also enhance the range of specimen available to be tested for possible medicinal and curative benefits.<sup>35</sup> However, it is submitted that any such access must be required, morally and legally, to protect the holistic interests of the local communities.

The important roles that indigenous knowledge systems play in the process of bioprospecting cannot be over-emphasized. This is in addition to the fact that indigenous communities provide the physical plant and animal resources that are used for the actual research. The central issue in the contemporary discourse on bioprospecting and the position of indigenous communities appears to revolve around the key question: what should be the extent of control that indigenous and local communities could exercise over the resources within their respective territories?

This issue, to an extent, is intertwined with the issue of the source of appropriate consent for bioprospecting. This is because the entity that has the right to control any particular resource(s) should of necessity have the right to grant consent for any prospecting activity over such a resource(s). In the present context, the issues of what amounts to 'control' of biodiversity resources, and who exercises such control are complicated. This is especially

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<sup>33</sup> See Asebey and Kempenaar above n 30, 706.

<sup>34</sup> See International Development Research Centre (IDRC): 'Accessing the Benefits of Bioprospecting in Latin America' <[http://www.idrc.ca/en/ev-5571-201-1-DO\\_TOPIC.html](http://www.idrc.ca/en/ev-5571-201-1-DO_TOPIC.html)> at 27 June 2006.

<sup>35</sup> Ibid.

since the CBD vests sovereign rights over biodiversity resources in states.<sup>36</sup> The implications of this provision of the CBD for indigenous and local communities in the area of resource and biodiversity management are discussed later in this chapter. Another issue that is incidental to resource control is that of sharing the benefits accruing from the commercialization of resource(s) from bioprospecting activities. In sum, the issues involved in this chapter could be classified into three: the control of biodiversity resources, the role of indigenous and local communities in bioprospecting, and the accrual of benefits from bioprospecting activities to local communities. These issues dovetail into one another and overlap. However, attempt will be made to deal with them separately in the following discussions.

### 3.1.1. Indigenous Peoples and Resource Control<sup>37</sup>

One issue agitating the discourse on biodiversity and indigenous knowledge is the extent to which indigenous and local communities should exercise control over the resources within their respective territories.<sup>38</sup> There is no doubt that the rights to natural resources are probably among the most debated and most contentious issues with respect to indigenous peoples and local communities.<sup>39</sup> This has also made the task of articulating and implementing indigenous resource-rights difficult.<sup>40</sup> In general, there seems to be a scholarly consensus that indigenous peoples' land and resource rights incorporate the right over all

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<sup>36</sup> See articles 3 and 15 of the CBD.

<sup>37</sup> In this chapter, the terms 'indigenous peoples,' 'local communities,' 'indigenous communities,' 'indigenous groups' and 'indigenous peoples and local communities' will be used interchangeably. This is for the sake of convenience. Although the terms might not be semantically the same, this work is not concerned with any such distinctions.

<sup>38</sup> See generally Nancy Peluso, 'Territorializing Local Struggles for Resource Control: A Look at Environmental Discourses and Politics in Indonesia' in Paul Greenough and Anna Tsing (eds), *Nature in the Global South: Environmental Projects in South and Southeast Asia* (2003) 200 – 235.

<sup>39</sup> See Osvaldo Kreimer, 'Indigenous Peoples' Rights to Land, Territories and Natural Resources: A Technical Meeting of the OAS Working Group' (2003) 10 *Human Rights Brief* 13, 16.

<sup>40</sup> Ibid.

surface resources necessary for their survival and for sustainable environmental management.<sup>41</sup>

In discussing this issue further, the question remains: what is the extent of the right that indigenous peoples and local communities should assert over resources within their territories? A survey of available literature suggests that there are divergent views on this issue of resource control. For instance, from the perspective of some indigenous peoples and local communities, there is the need for indigenous groups to have absolute control over their lands, knowledge and other resources.<sup>42</sup> This is because the practice prevalent in most indigenous communities has always been that land was held usufruct and therefore could not be removed from a community's use for its subsistence.<sup>43</sup> Another issue that is implicit in the assertion of indigenous resource rights is the extended struggle to preserve indigenous culture and traditions that are so often inextricably linked to the land and other resources.<sup>44</sup> According to Posey, these indigenous resource rights usually implicate other rights, including the rights to environmental integrity, privacy, prior informed consent, religious freedom, cultural property, and farmers' rights among others.<sup>45</sup>

The general belief within local communities is that an effective assertion of their resource rights enables them to determine the terms, scope and manner of any access to their resources, and helps to eliminate any case(s) of unauthorized

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<sup>41</sup> Ibid.

<sup>42</sup> This is the view adopted by article 33 of the *Indigenous Peoples Earth Charter* 1992 (Kari-Oca Declaration) in asserting that: 'indigenous peoples' inalienable rights to land and resources confirm that we have always had ownership over our traditional territories. We demand that this be respected.' For the text of the Declaration, see [http://www.tebtebba.org/tebtebba\\_files/susdev/susdev/earthcharter.html](http://www.tebtebba.org/tebtebba_files/susdev/susdev/earthcharter.html) at April 28 2005.

<sup>43</sup> See Jose Mencia Milintas, 'The Philippine Indigenous Peoples' Struggle for Land and Life: Challenging Legal Texts' (2004) 21 *Arizona Journal of International and Comparative Law* 269, 275.

<sup>44</sup> Ibid.

<sup>45</sup> See Darrell A. Posey, 'Protecting Indigenous Peoples' Rights to Biodiversity' (1996) 38 *Environment* 7, 39.

bioprospecting activity.<sup>46</sup> Indigenous peoples seem to have always had the fear that if not properly regulated, bioprospecting activities have the tendency to destroy the symbiotic relationship that had existed between them and their environment.<sup>47</sup> This is because some of these indigenous resources have other symbolisms, spiritual and otherwise, to the relevant communities. Therefore, if adequate care is not taken to ensure that the terms of access are strictly adhered to, this could lead to tensions between those seeking access and members of the local communities. There is also the belief that any unregulated bioprospecting activities could erode indigenous peoples' role as the custodians and managers of their resources and natural environment.<sup>48</sup> This could happen in the event of over depletion of a community's resources, which would eventually jeopardize their basis of livelihood and the peoples' role as environmental custodians.

Apart from the above concerns, there is another viewpoint that regards bioprospecting as amounting to an outright illegal expropriation of indigenous resources, and very injurious to the collective interests of indigenous communities. This is especially the view when little or no benefits accrue to the local communities. This sentiment could be gleaned from the opinion of the General Co-ordinator of the Coordinating Body for Indigenous Peoples' Organizations of the Amazon Basin (COICA), Antonio Jacanimijoy, in stating that:

Our peoples have for generations been involved in the discovery, improvements and conservation of innumerable plant species and animal breeds for the benefit of themselves and mankind as a whole. Nevertheless, under the cover of international treaties and national laws imposed in our countries, we have looked on helplessly as companies and research institutes have made use of our knowledge, appropriated our resources and made money from what they call their inventions.<sup>49</sup>

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<sup>46</sup> An extended discussion of the issues surrounding 'unauthorized prospecting' will be discussed in the next two chapters.

<sup>47</sup> See Ramani above note 28, 1147

<sup>48</sup> Ibid.

<sup>49</sup> See Statement by Antonio Jacanimijoy, Coordinating Body of Indigenous Organizations of the Amazon Basin (COICA) 1998, cited in Brendan Tobin, 'Biodiversity Prospecting

From one view point, well-regulated bioprospecting activities stand to benefit prospectors and local communities alike, but from another, perceived injustices from past biodiscovery activities paint a bleak future for local communities. Essentially, the bioprospecting debate has generated two polarized discourses that are constructed simply as stories of mutual benefits or cheating ('biopiracy'.)<sup>50</sup> While several bioprospectors are inclined to highlight the mutually-beneficial relationships that exist between them and the resource owning communities,<sup>51</sup> none wants to be associated with practices that could be branded 'biopiracy.'

One problem for local communities is that bioprospecting scenario is marginal. This is because most international and domestic instruments that regulate access to biodiversity tend to vest ownership rights in the states. This would seem to marginalize the involvement of local communities in the process. However, bioprospecting activities usually involve the search for products and the local knowledge of their uses, and because the states themselves do not have proprietary rights over such knowledge, it is only in collaboration with local communities that such knowledge could be accessed. The role of indigenous and local communities in contributing to global economy, healthcare, and welfare must be approached from this perspective to be appreciated.

In recent years, non-indigenous entities seem to have more understanding of the position of indigenous communities in their struggle for rights over their

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Contracts: The Search for Equitable Agreements' in Sarah A. Laird (ed), *Biodiversity and Traditional Knowledge: Equitable Partnership in Practice* (2002) 287.

<sup>50</sup> See Shiveharn S. Dhillon, 'Bioprospecting: Effects on Environment and Development' (2002) 31 *Ambio* 491.

<sup>51</sup> The INBio experience in Costa Rica, although implemented under the state's initiative, is usually touted as one example of a successful synergy between bioprospectors and the resource-owning state/communities. See for instance, Peter Green, 'Biodiversity Conservation in Costa Rica: The INBio Experience' (2004) *Microbiologist* at

<<http://www.blackwellpublishing.com/Microbiology/pdfs/biocosta.pdf>> at April 30 2005.

biodiversity and genetic resources. In actual practice, indigenous groups tend to assert control and guardianship rights over their resources and are more likely to stress the significance of the obligations that being the guardian or custodian of any resource(s) or knowledge entail.<sup>52</sup> This tendency to emphasize the elements of control and guardianship derives predominantly from the very close association that exists between the right to control resources and the need for the preservation of indigenous culture and tradition.<sup>53</sup> Although in some cases the overall elements of this control and guardianship could exhibit attributes of ownership, the term 'ownership' is not very commonly used in such instances.<sup>54</sup> It is usually the cultural norm that most resource owners allow some margins of common usage of these resources by other people, especially for non-commercial purposes.

An end result of the custody and guardianship approaches described above is becoming increasingly manifest: indigenous and local communities are increasingly becoming disposed to engage in partnership for the equitable benefit-sharing of the proceeds from the use of their knowledge systems and commercial development of their resources, products or processes.<sup>55</sup> This latter position tacitly acknowledges the fact that in this era of globalized and interconnected world economy, any attempt to totally shut-out the rest of the world from benefiting from the knowledge and resources of indigenous peoples will be virtually impossible to accomplish. Consequently, in contemporary practices, indigenous and local communities are more inclined to demand the recognition and protection of their rights, knowledge, and

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<sup>52</sup> See Marianne Lotz, 'Indigenous Plants, Indigenous Rights: A Discussion of the Problems Posed for Protecting Indigenous Intellectual Property' at <http://www.cappe.edu.au/Plant%20Breeders%20Rights/paper2.htm> at April 30 2005.

<sup>53</sup> *Ibid.*

<sup>54</sup> The general characteristics of indigenous proprietary interests were discussed in chapter two of this work.

<sup>55</sup> See Gerald Bodeker, 'Traditional Medical Knowledge, Intellectual Property Rights and Benefit Sharing' (2003) 11 *Cardozo Journal of International and Comparative Law* 785, 785-786.



practices relating to the use and conservation of their biodiversity resources, rather than engaging in the rehash of any perceived past injustices in this area.<sup>56</sup>

Why then do issues of ownership, control and protection of indigenous knowledge systems and resources still continue to generate unending debates globally? Several reasons could be proffered as being responsible for the above situation and they could be loosely grouped into three for ease of discussion: (a) the international legitimization of indigenous peoples' interests and status; (b) the 'privatization' of biodiversity and genetic resources; and, (c) the virtual wholesale commercialization of the products of biodiversity and genetic resources. Although items (b) and (c) are interconnected and dovetail into each other in several respects, they will be discussed separately below.

### 3.1.2. The Impetus of International Legitimization

As noted above, in recent years, the international community has in various fora underlined the importance of global biodiversity<sup>57</sup> and the role of indigenous communities in its sustenance, management and conservation. The nexus between biodiversity conservation, the environment and sustainable development, including the roles of indigenous communities therein, have also been highlighted.<sup>58</sup> For instance, the CBD opens with the statement that the Contracting Parties are 'conscious of the intrinsic value of biological diversity and of the ecological, genetic, social, economic, ...cultural, recreational and

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<sup>56</sup> See Davis above n 9, 3.

<sup>57</sup> See Ajay K. Sharma, 'The Global Loss of Biodiversity: A Perspective in the Context of the Controversy Over Intellectual Property Rights' (1995) 4 *University of Baltimore Intellectual Property Law Journal* 1, 4. See also Dan A. Tarlock, 'Local Government Protection of Biodiversity: What is its Niche?' (1993) 60 *University of Chicago Law Review* 555, 556. The Preamble to the *Cartagena Protocol on Biosafety* 2000 (the Biosafety Protocol) also recognizes 'the crucial importance to humankind of centres of origin and centres of genetic diversity.' For the text of the *Biosafety Protocol*, see <<http://www.biodiv.org/biosafety/protocol.asp>> at May 2 2005.

<sup>58</sup> For example, article 9 of the *International Treaty on Plant Genetic Resources* 2001, recognizes the roles of indigenous and local communities in conserving and developing plant genetic resources for food and agriculture. For the text of the Treaty, see <<ftp://ext-ftp.fao.org/ag/cgrfa/it/ITPGRe.pdf>> at May 2 2005.

aesthetic values of biological diversity and its components.<sup>59</sup> The CBD also recognizes and highlights, among other things, the 'close and traditional dependence of many indigenous and local communities...on biological resources...<sup>60</sup> In recognizing the custodianship role of local communities in this area, article 10(c) of the Convention requires states to 'protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use.'<sup>61</sup>

Following in the same direction, article 26 of *Draft Declaration on the Rights of Indigenous Peoples* 1994 (Draft Declaration) highlights the rights of indigenous peoples and local communities to own, develop, control and use their lands and territories, which includes their 'lands, air, waters, coastal seas, sea-ice, flora and fauna and other resources which they have traditionally owned or otherwise occupied or used.'<sup>62</sup> Furthermore, chapter 26.1 of *Agenda 21* of 1992 recognizes that indigenous peoples and other local communities represent a significant percentage of the global population. As discussed in chapter one, it notes that they have over several generations developed some levels of accumulated knowledge of their environment.<sup>63</sup> In a related development, Principle 22 of *Rio Declaration on Environment and Development* 1992 also recognizes the vital role of indigenous peoples and their communities in environmental management.<sup>64</sup> Finally, article 15(1) of the *Convention* (169)

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<sup>59</sup> See the opening paragraph of the Preamble to the CBD 1992.

<sup>60</sup> See paragraph 12 of the Preamble to the CBD.

<sup>61</sup> Refer to discussions under Traditional Medicinal Knowledge (TMK) in chapter one of this work.

<sup>62</sup> See the Commission on Human Rights, *Draft Declaration on the Rights of Indigenous Peoples* 1992 at <<http://www.usask.ca/nativelaw/ddir.html>> at May 6 2005.

<sup>63</sup> See the discussions on 'ecosystem management' in chapter one of this work. It should be noted that a U.N. Report in 2002 concluded that there has been a significant difference between the promises and the implementation of the goals of Agenda 21. See *Implementing Agenda 21: Report of the Secretary-General*, U.N. ESCOR, 2d. Sess., at 4-5. U.N. Doc. E/CN.17/2002/PC.2/7 (2002), cited in John C. Dernbach, 'Making Sustainable Development Happen: From Johannesburg to Albany' (2004) 8 *Albany Law Environmental Outlook Journal* 173, 178 fn.

<sup>64</sup> See the discussions on 'ecosystem management' in chapter one of this work.

*Concerning Indigenous and Tribal Peoples in Independent Countries* 1989<sup>65</sup> (Indigenous Peoples Convention) recognizes the rights of indigenous and tribal peoples to the natural resources pertaining to their lands and that these rights were to be specially safeguarded. The rights addressed by the *Indigenous Peoples' Convention* include the rights to participate in the use, management and conservation of the peoples' resources.<sup>66</sup> These provisions, even though some are non-binding, have without doubt affirmed the position of local communities as essential partners in the management of global biodiversity resources.

### 3.1.3. Some Implications of Legitimation

The above legitimation of the rights and status of indigenous peoples and local communities by the international community brought an added impetus to indigenous peoples' quest to control their resources. For instance, the *Draft Declaration* expressly recognizes the rights of local communities to own and control their resources.<sup>67</sup> Although article 15 (1) of the *Indigenous Peoples Convention* only prescribes rights that relate to use, management and conservation of resources by indigenous communities, it is arguable that rights of use, management and conservation are easily subsumed under the incidence of ownership. However, it is still debateable whether the totality of international efforts to recognize the resource-rights of indigenous groups could amount to conferring ownership rights on these groups. Any discussion on this issue must take cognizance of the inclination by the international community to vest sovereign rights in resources in state parties.

It is obvious that several international instruments avoid expressly conferring any ownership rights over natural resources on indigenous peoples and local communities. For instance, paragraph 14 of the *Draft Declaration of Principles on*

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<sup>65</sup> See the Convention (No. 169) *Concerning Indigenous and Tribal Peoples in Independent Countries* 1989 at <<http://www.unhchr.ch/html/menu3/b/62.htm>> at May 6 2005.

<sup>66</sup> Ibid.

<sup>67</sup> See article 26 of the *Draft Declaration*.

*Human Rights and the Environment* 1994 (Draft Principles) provides, *inter alia*, that indigenous peoples possess the 'right to control their lands, territories and natural resources and to maintain their traditional way of life...'<sup>68</sup> Although the 'right of control' is one of the elements of property ownership, there are instances where control imports only usufructuary rights.<sup>69</sup> The trend of avoiding express ownership entitlements to indigenous groups is also reflected in the provisions of article 8 (j) of the CBD which requires states to:

Respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation of and sustainable use of biological diversity.

None of the above provisions appear to have conferred any express and enforceable ownership rights on indigenous communities, even though some states appear to depart from these instruments and confer control over resources on local communities.<sup>70</sup> The legitimization of indigenous rights in international arena is not yet complete, and indigenous groups are still relying mostly on international instruments with ambiguous provisions or without binding force. For instance, it has been suggested that the use of the phrase 'traditional lifestyles' in the wording of article 8(j) of the CBD might be interpreted to exclude indigenous groups and communities that have not retained any direct connection with their lands and resources, but wish to protect the other aspects of their knowledge and innovations.<sup>71</sup> This seems to be

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<sup>68</sup> For the text of the *Draft Declaration of Principles on Human Rights and the Environment* 1994, see <<http://www.worldpolicy.org/globalrights/environment/envright.html>> at May 8 2005.

<sup>69</sup> An usufructuary right describes a situation where property could be enjoyed by a person while the ownership right vests in another person. See *Black's Law Dictionary* (5<sup>th</sup> ed 1979) 1384. See generally, Karen Ferguson, 'Indian Fishing Rights: Aftermath of the Fox Decision and the Year 2000' (1998/1999) 23 *American Indian Law Review* 97; L.F.E. Goldie, 'Title and Use (and Usufruct) – An Ancient Distinction Too Oft Forgotten' (1985) *American Journal of International Law* 689.

<sup>70</sup> This issue will be discussed in the next chapter.

<sup>71</sup> See Davis above n 9, 28 citing Donna Craig, 'Implementing the Convention on Biological Diversity: Indigenous Peoples' Issues' being Contribution to IUCN Commission on Environmental Law, Technical Paper on Legal and Institutional Issues Arising from the

a wrong interpretation of article 8(j). The fact that some indigenous communities do not have 'direct connections' to their lands and resources does not imply that their 'traditional lifestyles' are automatically extinguished. In this respect, it is important to note that indigenous lifestyles, including all facets of their varied cultures, mores, beliefs and traditions are more or less interconnected and are not lost by the incidence of physical migration of any group.

Finally, it could be said that the full effect of the international 'legitimation' of the rights of indigenous peoples and local communities still appears to be partial in nature. This is because such 'legitimation' has not resulted, as it should, in full ownership rights over natural resources, that is, rights that contain the inherent powers to alienate their resources, take control of the means for access to these resources and exceed the custodial roles that most international instruments have offered so far. With such ownership rights, local communities can negotiate and enter into benefit-sharing agreements in their own behalf, and not based on the paternalistic requirements for benefit-sharing that relevant international instruments have placed on states. It appears that until such ownership rights are secured, the agitation by local communities for further rights in this area will continue.

### **3.1.4. The 'Privatization' of Biodiversity**

Another reason for the agitation within indigenous and local communities to assume full ownership over their natural resources must be ascribed to the 'privatization' and 'commercialization' of global biodiversity and related resources. These trends have effectively brought an end to the era when the common heritage principle<sup>72</sup> was applicable to biodiversity and genetic

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Interpretation of Convention on Biological Diversity, Presented to the Regional Conference on Biodiversity Convention, Manila Philippines, 6-8 June 1994.

<sup>72</sup> For detailed discussions on the common heritage principle, see generally Kemal Baslar, *The Concept of the Common Heritage of Mankind in International Law* (1998) 1-78. See also J.M. Spector, 'Saving the Ice Princess: NGOs, Antarctica and International Law in the New

resources. The last vestige of that era was the *International Undertaking on Plant Genetic Resources for Food and Agriculture* 1983 (the Undertaking), which was effectively foreclosed in 1992 and 2001 by the CBD and the ITPGR respectively.

The term 'privatization' is used in the present context to signify the confirmation that all aspects of biodiversity and genetic resources have been removed from being the common heritage of mankind and firmly within the sovereign control of states. The question as to the propriety or otherwise of the trend to 'privatize' biodiversity is an issue that has been dealt with elsewhere.<sup>73</sup> This section will examine the progression that resulted in the final confirmation that biodiversity and genetic resources are no longer common heritage resources.

### a. Historical Perspectives

Historically, the global tendency was to treat naturally occurring biodiversity and genetic materials as being the common heritage of mankind and thus available for free usage.<sup>74</sup> For several decades this perception was accepted as the norm. This belief was confirmed by the Undertaking, which dealt specifically with plant genetic resources.<sup>75</sup> In article 1 the *Undertaking* provides, *inter alia*, that its principal objective was to ensure that plant genetic resources

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Millennium' (1999) 23 *Suffolk Transnational Law Review* 57; James Odek, 'Bio-piracy: Creating Proprietary Rights in Plant Genetic Resources' (1994) 2 *Journal of Intellectual Property Law* 141; J.M. Spectar, 'The Fruit of the Human Genome Tree: Cautionary Tales about Technology, Investment, and the Heritage of Humankind' (2001) 23 *Loyola of Los Angeles International and Comparative Law Review* 1; Chika B. Onwuekwe, 'The Commons Concept and the Intellectual Property Concept Regime: Whither Plant Genetic Resources and Traditional Knowledge?' (2004) 2 *Pierce Law Review* 65.

<sup>73</sup> See for instance, Shalini Bhutani and Ashish Kothari, 'The Biodiversity Rights of Developing Nations: A View from India' (2002) 32 *Golden Gate University Law Review* 587; Christopher D. Stone, 'What to Do about Biodiversity: Property Rights, Public Goods, and the Earth's Biological Riches' (1995) 68 *Southern Carolina Law Review* 577.

<sup>74</sup> See Michelle A. Powers, 'The United Nations Framework Convention on Biological Diversity: Will Biodiversity Preservation Be Enhanced Through Its Provisions Concerning Biotechnology Intellectual Property Rights?' (1993-1994) 12 *Wisconsin International Law Journal* 103, 111.

<sup>75</sup> For the text of the FAO's *International Undertaking on Plant Genetic Resources for Food and Agriculture* 1983, see <<ftp://ext-ftp.fao.org/ag/cgrfa/iu/iutextE.pdf>> at May 10 2005.

that were of economic and/or social interest to the global community were to be freely 'explored, preserved, evaluated and made available for plant breeding and scientific purposes.'<sup>76</sup> The *Undertaking* also confirmed that its underlying theme was the 'universally accepted principle that plant genetic resources are a heritage of mankind and consequently should be available without restriction.'<sup>77</sup>

The above perception endured within the international community for a while with far-reaching consequences. One of the major consequences was that within the period in question, other areas of biodiversity, including animal and cultural components were appropriated based on the common heritage principle, even though there was no express international understanding in these respects.<sup>78</sup> Consequently, there were continuous bioprospecting activities for plants, animal and related specimen from resource-rich communities, mostly in developing countries and local communities. In essence, the intent of the common heritage principle was defeated, in the sense that the products made from raw materials from local communities ended up being commercialized at huge profits to the prospectors, while nothing was returned to the resource-communities.<sup>79</sup>

While the common heritage principle held sway, the dominant international posture appeared to project bioprospecting activities as engendering altruistic research in the quest to improve the quality of life for all mankind.<sup>80</sup> In

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<sup>76</sup> Ibid.

<sup>77</sup> Ibid.

<sup>78</sup> See Bruce generally Ziff and Pratima V. Rao, 'Introduction to Cultural Appropriation: A Framework for Analysis' in Bruce Ziff and Pratima V. Rao (eds), *Borrowed Power: Essays on Cultural Appropriation* (1997) 1, 14.

<sup>79</sup> See generally Nabila Ansari, 'International Patent Rights in a Post-Doha World' (2002) *International Trade Law Journal* 57; Keith Aoki, 'Neocolonialism, Anticommons Property and Biopiracy in the (Not-So-Brave-World) New World Order of Intellectual Property Protection' (1998) 6 *Indiana Journal of Global Legal Studies* 11; David Conforto, 'Traditional and Modern day Biopiracy-Redefining the Biopiracy Debate' (2004) 19 *Journal of Environmental Law and Litigation* 357.

<sup>80</sup> See Michael Woods 'Food for Thought: The Biopiracy of Jasmine and Basmati Rice' (2002) 13 *Albany Law Journal of Science and Technology* 123, 135.

supporting this cause, most resource-rich developing countries and local communities allowed bioprospectors access to varied species of plant and animal resources.<sup>81</sup> This was particularly with respect to materials that were thought to hold probable clues to cures for severe ailments, including malaria, cancer, sickle-cell anaemia, among others.<sup>82</sup> This grant of access was still premised on the understanding that plants and other genetic resources constituted the 'common heritage of humankind' to be freely accessed and utilized for the general good.<sup>83</sup>

There is no doubt that there were cases of judicious uses of resources sourced from local communities within this period, which benefited mankind.<sup>84</sup> However, with time, it appeared that the altruism of the resource prospectors was called into question, as evidence revealed the millions of dollars being made by individuals and corporations from the end products of the materials from local communities.<sup>85</sup> This development was compounded by the fact that, in some situations, the local medicinal knowledge of the local communities was also accessed and utilized in producing these end products. This situation ultimately led to calls for the re-examination of the priorities and interests of all the parties connected with bioprospecting activities.

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<sup>81</sup> For discussions on the traditional medicine aspect of indigenous knowledge and the role of indigenous peoples within the international community in engendering its sustenance, see generally Chidi Oguamanam, 'Between Reality and Rhetoric: The Epistemic Schism in the Recognition of Traditional Medicine in International Law' (2003) 16 *St. Thomas Law Review* 59.

<sup>82</sup> See Erik B. Bluemel, 'Substance Without Process: Analyzing TRIPS Participatory Guarantees in the Light of Protected Indigenous Rights' (2004) 86 *Journal of Patent and Trademark Office Society* 671, 685-686.

<sup>83</sup> See John R. Adair, 'The Bioprospecting Question: Should the United States Charge Biotechnology Companies for the Commercial Use of Public Wild Genetic Resources?' (1997) 24 *Ecology Law Quarterly* 131, 133.

<sup>84</sup> What seems to be in issue is the benefit that the relevant local communities derived from such activities. See Christopher G. Reuther, 'Who Reaps the Benefits of Bioprospecting?' (2001) *Environmental Health Perspectives* at <<http://www.ehponline.org/docs/2001/109-12/focus.html>> at 5 August 2006.

<sup>85</sup> It has been submitted that it is virtually impossible to derive precise estimates of the actual value arising from bioprospecting activities. See David R. Simpson, Roger Sedjo and John W. Reid, 'Valuing Biodiversity for Use in Pharmaceutical Research' (1996) 104 *Journal of Political Economy* 163, 180.



## b. The Changing Paradigm

With respect to access to biodiversity and genetic resources, it was soon obvious that a paradigm shift was inevitable regarding their classification as being common heritage.<sup>86</sup> In time, the preponderance of global opinion tilted in favour of rejecting the common heritage classification for these resources, as it was no longer sustainable or justifiable based on existing realities. The global community has appreciated that any external access to the knowledge systems and resources of any particular group or community must be duly compensated. This change in paradigm was an added impetus for local communities to demand the recognition of their ownership rights over resources. The coming of the CBD heralded the 'privatization' of global biodiversity and genetic resources and came as a crystallization of decades-long efforts and agitations of developing countries. Of note, however, is that neither the CBD nor other relevant international instruments have substantially enhanced the resource-rights of indigenous communities over biodiversity and genetic resources.<sup>87</sup>

As noted above, the CBD handed control of biodiversity resources over to the states, which are then to determine the manner of access via national legislation. In this respect, article 3 of the CBD provides that:

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the

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<sup>86</sup> For further discussions on the common heritage principle, see generally Gillian D. Triggs, 'The Antarctic Treaty Systems: Some Jurisdictional Problems' in Gillian D. Triggs, (ed), *The Antarctic Treaty Regime: Law, Environment and Resources* (1987) 99-104; Gillian D. Triggs, *International Law and Australian Sovereignty in Antarctica* (1986). The Crucible Group submits that the advent of new technologies and the capacity to identify and incorporate genetic materials into commercial products have changed the pace of activities in the biotechnology industry and altered existing intellectual property systems. See The Crucible Group, *People, Plants and Patents* (1994) 2; Ellen S. Tenenbaum, 'A World Park In Antarctica: The Common Heritage of Mankind' (1990) 10 *Virginia Environmental Law Journal* 109.

<sup>87</sup> The major contributions of the CBD could be said to be in article 8(j) and 16 that deals with benefits-sharing and technology transfer within the context of biodiversity sustainability.

responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

In one respect, this provision of the CBD foreclosed the common heritage of mankind principle in relation to biodiversity and genetic resources, but in another respect, it adopted the classical international law position of the role of states as the dominant players on the international arena.<sup>88</sup> The rights of indigenous communities under the CBD are only exercisable at the instance of the states, they play only peripheral roles in matters relating to access to biodiversity and genetic resources. It is to note that states' rights are also embedded with the responsibility that their environmental policies should not be harmful to other states. This implies that the defence of 'internal or domestic affairs' will not avail any state(s) that employs externally-detrimental environmental policies.

The initiatives to 'privatize' biodiversity and genetic resources were not solely undertaken by developing countries and indigenous groups. In an unexpected twist the *Undertaking* also caused developed countries to agitate for the privatization of genetic resources, especially plant genetic resources.<sup>89</sup> This twist was introduced by article 2 of the *Undertaking* which defined 'genetic resources' to include the reproductive or vegetative materials of: (i) cultivated varieties (cultivars) in current use and newly developed varieties; (ii) obsolete cultivars; (iii) primitive cultivars (land races); (iv) wild and weed species, near relatives of cultivated varieties; (v) special genetic stocks (including elite and current breeders' line and mutants).<sup>90</sup> As a consequence, it became obvious that the common heritage principle had spread over not only the farmers' fields in

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<sup>88</sup> See Dinah Shelton, 'Normative Hierarchy in International Law' (2006) 100 *American Journal of International Law* 291, 318fn.

<sup>89</sup> See the explanations in Keith Aoki, Intellectual Property and the Law and Politics of Global Food Supply: An Introduction' (2004) 19 *Journal of Environmental Law and Litigation* 397, 427-430.

<sup>90</sup> See the *Undertaking* above n 75.

developing countries and indigenous communities, but also over special genetic stocks inside agricultural laboratories in developed countries.<sup>91</sup>

The response of the developed countries to this development was immediate, definite and decisive.<sup>92</sup> At the forefront was the American Seed Trade Association (ASTA) which declared that the *Undertaking* 'strikes at the heart of free enterprise and intellectual property rights.'<sup>93</sup> This led several developed countries including United States, Denmark, Finland, France, Norway, Sweden, United Kingdom, and New Zealand to abandon the *Undertaking*.<sup>94</sup> As a consequence, both the developing and developed countries made a series of compromises.<sup>95</sup> One of the major items of compromise was the addition of the 'Third Annex to the Undertaking' in 1991.<sup>96</sup> This Annex re-emphasizes the conservation of plant genetic resources and the acceptance of both farmers' rights and breeders' rights. It was this Third Annex that set in motion the momentum for a paradigm change by proclaiming that 'nations have sovereign rights over their plant genetic resources.'<sup>97</sup> The international community finally crystallized this understanding as binding treaty provisions under the CBD and the ITPGR.

### 3.1.5. The Contribution of the UPOV Convention

One of the major triggering factors for the change in paradigm discussed above was the perceived differential standard adopted by the international community in protecting plant varieties and other genetic resources. While the authorities in developed and rapidly-developing countries conferred private

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<sup>91</sup> See David S. Tilford, 'Saving the Blueprints: The International Regime for Plant Resources' (1998) 30 *Case Western Reserve Journal of International Law* 373, 411.

<sup>92</sup> See John Willoughby, 'Seed Wars' *San Francisco Chronicle*, June, 2, 1991, 14 cited in Tilford above n 91, 378.

<sup>93</sup> *Ibid.*

<sup>94</sup> *Ibid.*

<sup>95</sup> See Neil D. Hamilton, 'Who Owns Dinner' (1993) 28 *Tulsa Law Journal* 587, 589.

<sup>96</sup> *Ibid.*

<sup>97</sup> *Ibid.*

proprietary rights on plant genetic resources,<sup>98</sup> in developing countries, they were treated as common heritage resources. For instance, from 1961 to 1991 and beyond, the *International Convention for the Protection of New Varieties of Plants* (UPOV Convention)<sup>99</sup> variously protected the proprietary rights of breeders of new plants varieties from any external intrusion. In this area, it is instructive that most of the conventional plant breeders are in technologically-advanced countries that provide for strong patent protection.<sup>100</sup>

However, the plant protection regime for plant varieties under the UPOV Convention should be distinguished from the conventional patent protection.<sup>101</sup> Even though the requirements for plant variety protection under the UPOV Convention seem patent-like in some respects,<sup>102</sup> the two are not the same.

Essentially, the UPOV Convention had in some ways 'privatized' plant genetic resources since 1961. For instance, article 1(1) of the 1961 Convention states that its purpose was 'to recognise and to ensure to the breeder of a new plant variety or to his successor in title, a right...' The content of the right was enumerated in subsequent articles. Article 5 (1) of the UPOV Conventions of 1961 and 1978 respectively stipulates *inter alia*, that the rights granted to the breeder of a new plant variety or his successor in title require his/her prior authorization for any commercial production, marketing or vegetative propagation of the new plant variety. These are undoubtedly far-reaching provisions that were meant to give effective protection to the interests of plant breeders. They stipulations relate only to the 'unauthorized commercial exploitation' of a new plant variety and are thought to have legitimized the

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<sup>98</sup> See David G. Scalise and Daniel Nugent, 'International Intellectual Property Protection for Living Matter: Biotechnology, Multinational Conventions and the Exceptions for Agriculture' (1995) 27 *Case Western Reserve Journal of International Law* 83, 108.

<sup>99</sup> For the text of the UPOV Convention 1961, 1978 and 1991, see <<http://www.upov.int/en/publications/conventions/>> at May 14 2005.

<sup>100</sup> See Tilford above n 91, 406.

<sup>101</sup> See generally, Iver P. Cooper, *Biotechnology and the Law* (1996) 8.01-8.03.

<sup>102</sup> For instance, article 5 of the UPOV requires that a plant variety would have to be new, distinct, uniform and stable to qualify for protection. This seems to emulate the novelty requirement for patent protection.

traditional practice of saving seeds or propagating materials by local farmers for subsequent use.<sup>103</sup>

It is instructive that UPOV 1991 made a significant change in the above regard. Even though article 14(1) of the UPOV 1991 is similar in content to articles 5 (1) of the 1961 and 1978 UPOVs, its provisions are more comprehensive in nature and not limited to 'commercial production or propagation of plant materials'.<sup>104</sup> The rights protected under the 1991 Convention extend to include prohibitions against the production, marketing and propagation of any plant variety and also prohibits the stocking of these materials for any related purposes.<sup>105</sup>

The complete change in paradigm in the treatment of plant genetic resources was finally achieved in 2001, that is, when the ITPGR<sup>106</sup> was adopted. Article 10 (1) of the Treaty recognizes the sovereign rights of states over plants genetic resources, including the authority to determine access to those resources. The combined provisions of the ITPGR and the CBD imply that most areas of biodiversity resources within states' boundaries are covered by binding international instruments.

### 3.1.6. The Commercialization of Biodiversity

Another factor that has exacerbated the continued agitation for the global recognition of the resource-ownership rights of indigenous communities has been the increased rate of commercialization of biodiversity and genetic resources.<sup>107</sup> The quest by indigenous communities for collective rights over

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<sup>103</sup> See Remigius N. Nwabueze, 'Ethnopharmacology, Patents and the Politics of Plants' Genetic Resources' (2003) 11 *Cardozo Journal of International and Comparative Law* 585, 611.

<sup>104</sup> Ibid.

<sup>105</sup> Ibid.

<sup>106</sup> For the text of the ITPGR see <<ftp://ext-ftp.fao.org/ag/cgrfa/it/ITPGRRe.pdf>> at May 16 2005.

<sup>107</sup> See the several issues raised in Roger W. Finley, 'Legal and Economic Incentives for the Sustainable Use of Rainforests' (1997) 32 *Texas International Law Journal* 17, 19-21; David R. Downes, 'How Intellectual Property Could be a Tool to Protect Traditional Knowledge' (2000)

these resources seems, in some ways, to be a response to the perceived commercial over-exploitation of these resources by prospectors from developed countries. This is sometimes done in concert with governments of developing states without any concomitant benefits accruing to local communities.<sup>108</sup> The Western Australia Smokebush case, at least at the initial stages, was a clear example of this type of governmental participation to the detriment of indigenous communities.<sup>109</sup> The case is discussed fully in chapter five.

Commercialization activities in the area of biodiversity resources had been ongoing prior to the adoption of the CBD.<sup>110</sup> However, the requirement of prior informed consent and benefit-sharing by CBD and the ITPGR has revealed the magnitude of commercialism that exists for biodiversity and genetic resources in local communities.<sup>111</sup> In some instances, these activities have also been extended to human genetic resources with the resultant ethical and moral quagmire that have ensued.<sup>112</sup>

One of the fallouts from the commercialization of biodiversity and genetic resources is that it has further accentuated the demand by indigenous and local

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25 *Columbia Journal of Environmental Law* 253; Alben P. Petrova, 'From Amazon to the Alps: A Comparison of the Pharmaceutical Biodiversity Legal Protection in Brazil and Switzerland' (2003) 15 *Pace International Law Review* 247; Shayana Kadidal, 'Plants, Poverty and Pharmaceutical Patents' (1993) 103 *Yale Law Review* 223.

<sup>108</sup> See generally, Klaus Bosselmann, 'Plants and Politics: The International Legal Regime Concerning Biotechnology and Biodiversity' (1996) 7 *Colorado Journal of Environmental Law and Policy* 111.

<sup>109</sup> See generally, Christopher J. Hunter, 'Sustainable Bioprospecting: Using Private Contracts and International Legal Principles and Policies to Conserve Raw Medicinal Plants' (1997) 25 *Boston College Environmental Affairs Law Review* 129.

<sup>110</sup> See Reuther above n 84.

<sup>111</sup> Meyers submits that the biotechnology industry is one of the fastest growing industries in the world with total product sales surpassing US\$50 Billion (fifty billion dollars) per year. See Meyers 'The UN Biological Diversity Convention, Biotechnology and Intellectual Property Rights' (1999/2000) 4 *Bio-Science Law Review* 131 in Michael Hassemer, 'Genetic Resources' in S. von Lewinski (ed) *Indigenous Heritage and Intellectual Property: Genetic Resources, Traditional Knowledge and Folklore* (2004) 165.

<sup>112</sup> See Sabrina Safrin, 'Hyperownership in a time of Biotechnological Promise: The International Conflict to Control the Building Blocks of Life' (2004) 98 *American Journal of International Law* 641, 660-662. Also see generally Edward J. Baba, 'From Conflict to Confluence: Protection of Databases Containing Genetic Information' (2003) 30 *Syracuse Journal of International Law and Commerce* 121.

communities for ownership rights over their biodiversity and related resources. For these communities, the increased global attention on their biodiversity and genetic resources, coupled with numerous examples of successful commercialization of the products based on their invaluable knowledge,<sup>113</sup> implicate an urgent need for more benefits to accrue to them. For instance, according to Cox and Balick, Shaman Pharmaceuticals, Inc, a U.S. company that collects plant materials after talking to, and watching indigenous healers work, claims a success rate of more than fifty percent in laboratory analysis of the materials.<sup>114</sup> In contrast, for randomly collected specimen, one in every ten thousand proves a success.<sup>115</sup> The utility of indigenous knowledge systems and the roles of local communities in product development and commercialization are therefore well-recognized.<sup>116</sup>

It is important to note that the roles of local communities in contributing to successful products' commercialization have not usually been matched by benefits accruing to them from such activities. While there have been cases of mutually-beneficial collaboration, in several other cases, these communities receive paltry payments or insignificant benefits. The benefit-sharing agreement between Merck & Co., Inc. and the Costa Rican *Instituto Nacional de Biodiversidad* (INBio) (the Merck-INBio agreement), even though done before the CBD, has been acclaimed as an example of a rewarding industry-local community partnership.<sup>117</sup> However, it should be noted that the agreement was

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<sup>113</sup> It has been submitted that in 2004 the combined annual value of the world pharmaceutical and cosmetic markets was nearly \$US500 Billion (Five Hundred Billion Dollars). A sizeable amount of these products were sourced from indigenous communities and with the help of indigenous groups. See Carlos Malpica Lizarzaburu, 'Implementing the Principles of the United Nations Convention on Biological Diversity: The Experience of Kina Biotech in Peru' (2004) *IP Strategy* No. 11, 22 at 23.

<sup>114</sup> See P.A. Cox and M.J. Balick, 'The Ethnobotanical Approach to Drug Discovery' (1994) *Scientific American* 84, in RAFI, 'Bioprospecting/Biopiracy and Indigenous Peoples' <<http://www.latinsynergy.org/bioprospecting.htm>> at 28 June 2006.

<sup>115</sup> *Ibid.*

<sup>116</sup> Refer to discussions under TMK in chapter one of this work.

<sup>117</sup> See Dominic Keating, 'Access to Genetic Resources and Equitable Benefit Sharing Through a New Disclosure Requirement in the Patent System: An Issue in Search of a Forum' (2005) 87 *Journal of the Patent and Trademark Office Society* 525.

not with the local communities, but with a private agency under the auspices of the Costa Rican government.<sup>118</sup>

Despite the above, it is important to be cautious when discussing the benefits that could accrue to local communities from the exploitation of their knowledge and resources. What would amount to benefit is better left to the respective indigenous communities to determine,<sup>119</sup> even though it could be taken for granted that they should share in the profits from any successful commercialized product(s) that relied on their knowledge. For local communities, pecuniary considerations do not count as benefits in exchange for what they consider 'life sustaining resources' or sacred knowledge.<sup>120</sup> This is partly due to the fact that some of these resources are attached with some symbolisms and embedded in the culture, religion and tradition of the communities involved.<sup>121</sup> Furthermore, the fact that these resources were used by past generations, are being used by the present, and will be used by the future generations of indigenous groups for consumption, sustenance, and

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<sup>118</sup> For the criticisms of the Merck/INBio agreement, see Erin B. Newman, 'Earth's Vanishing Medicine Cabinet: Rainforest Destruction and its Impact on the Pharmaceutical Industry' (1994) 20 *American Journal of Law and Medicine* 479.

<sup>119</sup> There is no doubt that the Ganalbingu Indigenous Peoples of Australia would have received a lot of monetary gains if they had allowed R & T Textiles company to continue marketing the products with the sacred objects painted by John Bulun Bulun. However, the community turned down such an opportunity in order to protect what they considered sacred. See generally, Amina Para Matlon, 'Safeguarding Native American Sacred Art by Partnering Tribal Law and Equity: An Exploratory Case Study Applying the Bulun Bulun Equity to Navajo Sandpainting' (2004) 27 *Columbia Journal of Law and the Arts* 211; Christine H. Farley, 'Protecting Folklore of Indigenous Peoples: Is Intellectual Property the Answer?' (1997) 30 *Connecticut Law Review* 1.

<sup>120</sup> See Anil K. Gupta, 'Rewarding Local Communities for Conserving Biodiversity: The Case of the Honey Bee' in Guruswamy and McNeely above n 4, (suggesting that in some indigenous communities there are cultural and spiritual taboos against receiving monetary compensation for the dispensation of knowledge for fear that the efficacy of the knowledge will be adversely affected.)

<sup>121</sup> A good example is an object or resource that has been considered 'sacred' by the particular community in question. In this instance, pecuniary benefits will do little to enable the community to grant access to such a resource or object for commercial purposes. See generally, Daniel J. Gervais, 'Spiritual But Not Intellectual? The Protection of Sacred Intangible Traditional Knowledge' (2003) 11 *Cardozo Journal of International and Comparative Law* 467, 468-474.



exchanges, implicates their cultural sensitivity, and placing a price tag on them becomes difficult.<sup>122</sup>

There is no doubt that this subsistence approach to the use of biodiversity and genetic resources has been dramatically affected by the incidences of 'development,' 'privatization' and 'commercialization' of these resources that had ensued on the international scale.<sup>123</sup> One example of the effect of development that indirectly affects local subsistence is the clearing of thousand of acres of indigenous lands in the Brazilian Amazonia to build roads to enhance logging on indigenous lands.<sup>124</sup> This is notwithstanding the clear potential for the destruction of native and rare species of plants and animals that balance the ecosystems and serve as means of subsistence for local communities.<sup>125</sup> Therefore, in the contemplation of these communities, this case is considered the same as any case of accessing their biodiversity resources without their consent, since both would lead to the same result: the diminishing of their biodiversity resources without their agreement or any plan for replenishing such resources.

Despite the increased rate of commercialization of the products of indigenous biodiversity and genetic resources, the CBD and the ITPGR have not done enough in substantive terms for local communities for their ethnobotanical contributions to the world economy,<sup>126</sup> healthcare and ecosystem

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<sup>122</sup> See Gordon Christie, 'Aboriginal Rights, Aboriginal Culture, and Protection' (1998) 36 *Osgoode Hall Law Journal* 447, 456-458.

<sup>123</sup> See Darrell A. Posey and Graham Dutfield, 'What Rights do Communities Have to Say 'Yes' or 'No' to Commercialization' in *Beyond Intellectual Property: Towards Traditional Resource Rights for Indigenous Peoples and Local Communities* (1995) at <[http://web.idrc.ca/en/ev-30123-201-1-DO\\_TOPIC.html](http://web.idrc.ca/en/ev-30123-201-1-DO_TOPIC.html)> at May 18 2005.

<sup>124</sup> See generally, Martin A. Geer, 'Foreigners in their Own Land: Cultural Lands and Transnational Corporations-Emergent International Rights and Wrongs' (1998) 38 *Virginia Journal of International Law* 331. Mathew B. Royer, 'Halting Neotropical Deforestation: Do the Forest Principles Have What It Takes?' (1996) 6 *Duke Environmental Law and Policy Forum* 105.

<sup>125</sup> Ibid.

<sup>126</sup> See generally Jordan E. Erdos, 'Biodiversity in the Amazon: Promoting Indigenous Stewardship as a Policy' (1998) at

<<http://www.planeta.com/planeta/98/0298amazon.html>> at May 18 2005.

management.<sup>127</sup> From the global viewpoint, the CBD and the ITPGR simply 'recognize' the substantial contributions of indigenous and local communities in the area of conserving biodiversity and genetic resources, while urging states to respect and promote such contributions.<sup>128</sup> Ironically, this international recognition appears, at least from indigenous peoples' perspectives, to be one of the causes of the confusion about how these resources are to be controlled and protected. Even though the international community has recognized indigenous knowledge and practices, it appears that the fundamental characteristics of this knowledge system are not clearly understood, or fully appreciated.<sup>129</sup> Admittedly, several international organizations like the WIPO especially,<sup>130</sup> UNCTAD,<sup>131</sup> and the World Bank,<sup>132</sup> have variously sponsored researches on the nature of indigenous knowledge systems and have highlighted their characteristics. Despite this progress, no binding international instrument has inculcated the full elements of these characteristics into its provisions. Consensus on how best to protect indigenous knowledge systems and resources while still allowing access to them remains illusive.<sup>133</sup>

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<sup>127</sup> See the discussions on these issues in chapter one of this work.

<sup>128</sup> See generally, Meetal Jain, 'Global Trade and the New Millennium: Defining the Scope of Intellectual Property Protection of Plant Genetic Resources and Traditional Knowledge in India' (1999) 22 *Hastings International and Comparative Law Review* 777.

<sup>129</sup> Some of these characteristics were outlined by Martha Johnson in defining indigenous knowledge as 'a body of knowledge built by a group of people through generations living in close contact with nature. It includes a system of classification, a set of empirical observations about the local environment, and a system of self management that governs resource use.' See Martha Johnson, 'Research on Traditional Environmental: Its Development and its Role' in Martha Johnson (ed), *Lore: Capturing Traditional Environmental Knowledge* (1992) 4.

<sup>130</sup> The WIPO is the World Intellectual Property Organization established in 1967 by the WIPO Convention to administer and co-ordinate the administration of treaties aimed at aligning intellectual property issues around the world. For the text of the WIPO Convention, see <<http://www.wipo.int/treaties/en/convention/index.html>> at May 18 2005.

<sup>131</sup> The UNCTAD, the United Nations Conference on Trade and Development was established in 1964 to promote the ordered integration of developing countries into the global economy. For details about the activities of UNCTAD, see <<http://www.unctad.org/Templates/Page.asp?intItemID=1530&lang=1>> at May 18 2005.

<sup>132</sup> The activities of the World Bank Group (WBG) can be accessed at <<http://www.worldbank.org>> at May 18 2005.

<sup>133</sup> See for example Edward F. Fischer and Avery Dickens, 'Development and Hegemony: Cultural Property and Cultural Propriety in the Maya Region' (2004) 19 *Connecticut Journal of International Law* 315; Young-Gyoo Shim, 'Intellectual Property Protection of Biotechnology and Sustainable Development in International Law' (2003) 29 *North Carolina Journal of International Law & Commercial Regulation* 157; Rachael Grad, 'Indigenous Rights and Intellectual Property Law: A Comparison of the United States and Australia' (2003) 13 *Duke*

The issue of allowing access to indigenous knowledge and biodiversity resources, especially for commercial purposes, has assumed added significance in recent years. Consequently, efforts have now been made to harmonize and simplify the issues relating to the appropriate manner and source of the requisite consent for bioprospecting activities. As will be seen in the next chapter, most binding international instruments in this area, especially the CBD and the ITPGR, still confer the rights to control these resources and determine access in state parties. The *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization 2000* (Bonn Guidelines), being an instrument made under the CBD, also follow this pattern. This notwithstanding, efforts are continuing by state parties to the CBD, especially under the Working Group on article 8(j) of the CBD, to encourage active participation by local communities in collaborative ways with the states in areas of access. In this respect, states are being encouraged to adopt national biodiversity action plans, strategies and programmes for these purposes.<sup>134</sup> This is aimed at reducing the areas of tension between the states, local communities, and outsiders, which might impede the process of access to biodiversity resources.

In the final analysis, it has to be said that any initiative(s) that would palliate indigenous and local communities in terms of their concerns about access to their knowledge systems and resources, must assign definite roles to them in access activities. The reason for this is that local communities develop and

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*Journal of Comparative and International Law* 203; Roger W. Mastalir, 'A Proposal for Protecting the "Cultural" and "Property" Aspects of Cultural Property in International Law' (1993) 16 *Fordham International Law Journal* 1033; Chidi Oguamanam, 'Localizing Intellectual Property in the Globalization Epoch: The Integration of Indigenous Knowledge' (2004) 11 *Indiana Journal of Global Legal Studies* 135; Angela Riley, 'Indigenous Peoples and the Promise of Globalization: An Essay on Rights and Responsibilities' (2004) 14 *Kansas Journal of Law and Public Policy* 155; Michael Halewood, 'Indigenous and Local Knowledge in International Law: A Preface to Sui Generis Intellectual Property Protection' (1999) 44 *Mcgill Law Journal* 953.

<sup>134</sup> Details of this could be found on the article 8(j) link of the CBD website. See <<http://www.biodiv.org/programmes/socio-eco/traditional/default.asp>> at 28 June 2006.

nurture biodiversity resources as part of the process of sustaining their cultural diversity.<sup>135</sup> It is therefore an existential necessity that comes naturally to these communities without more, and the commercialization of which they should benefit from, as of right. In this circumstance, the present structure of international biodiversity regulation that leaves the determination of benefits from bioprospecting to states' discretion, is, at best, grossly inadequate. This is because it leaves the determination of the welfare of local communities to governmental discretion. Since the international community recognizes indigenous knowledge and practices 'relating to the quality and condition of the environment and the use or conservation of biodiversity',<sup>136</sup> it is incumbent that local communities play determinative roles in this subject area.

### 3.2. Conclusion

Issues relating to control of access to biological resources are contentious topics for both indigenous and non-indigenous communities, for obvious reasons.<sup>137</sup> In the main, access activities implicate a sort of conflict between indigenous cultural and spiritual approaches to the use of land and resources based on different social and ethical values, and other cultures that are based on liberal approach to access issues.<sup>138</sup> In consequence, it becomes clear that there are bound to be inevitable tensions during the access process that need to be managed through inclusive procedures put in place for such purposes.

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<sup>135</sup> See R.V. Anuradha, 'In Search of Knowledge and Resources: Who Sows, Who Reaps?' (1997) 6 *Review of European Commercial and International Environmental Law* 263.

<sup>136</sup> See Howard Mann, 'Intellectual Property Rights, Biodiversity and Indigenous Knowledge: A Critical Analysis in the Canadian Context: Case Studies Relating to IP Rights and the Protection of Biodiversity' in Rosemary Coombe, 'Intellectual Property, Human Rights and Sovereignty: New Dilemmas in International Law Posed by the Recognition of Indigenous Knowledge and the Conservation of Biodiversity' (1998) 6 *Indiana Journal of Global Legal Studies* 59, 92.

<sup>137</sup> See Yianna Lambrou, 'Control and Access to Indigenous Knowledge and Biological Resources' at <<http://www.nativemaps.org/?q=node/1403>> at 6 August 2006.

<sup>138</sup> Ibid.

Over the recent decades issues concerning access to biodiversity and indigenous knowledge systems have assumed more complexity in several dimensions.<sup>139</sup> In the present context, however, the issues seem to have assumed different colourations at different levels: first, at the international level, it seems that the interests of the 'North,' represented by the developed states of the world, and those of the 'South, comprising mostly the developing states, are in conflict. This conflict appears to be hinged mainly on resource ownership, the modalities for access, and issues relating to benefits from the commercializations of the products from such resources. Professor Ghosh conceptualizes this 'North-South tussle' as being played out in the arena of 'ownership and control of resources.'<sup>140</sup> He posits that this scenario also implicates tensions between the growth and consolidation of a market culture exemplified by the continuous expansion of the regime of intellectual property rights, and an existing communitarian gift-based culture.<sup>141</sup>

There are further tensions between states, both developed and developing, and local communities who nurture the bulk of biodiversity and genetic resources.<sup>142</sup> Even with the pervasive presence of the CBD, the ITPGR and other relevant instruments, there are still continuing pressures from local communities on the need to 'ensure' greater resource ownership rights for them over biodiversity and genetic resources.<sup>143</sup> In the present context, the need to

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<sup>139</sup> See Matthias Leistner, 'Analysis of Different Areas of Indigenous Knowledge: Traditional Knowledge' in S. von Lewinski (ed), *Indigenous Heritage and Intellectual Property: Genetic Resources, Traditional Knowledge and Folklore* (2004) 49, 166. See also Julia Jabour-Green and Dianne Nicol, 'Bioprospecting in Areas Outside National Jurisdiction: Antarctica and the Southern Ocean' (2003) 4 *Melbourne Journal of International Law* 77, 79 (discussing bioprospecting activities beyond states' territories).

<sup>140</sup> See Shubha Ghosh, 'Globalization, Patents, and Traditional Knowledge' (2003) 17 *Columbia Journal of Asian Law* 73, 76.

<sup>141</sup> Ibid.

<sup>142</sup> See Sabrina Safrin, 'Hyperownership in a Time of Biotechnological Promise: The International Conflict to Control the Building Blocks of Life' (2004) 98 *American Journal of International Law* 641, 650.

<sup>143</sup> One of the notable organizations working in this area is the 'GRAIN', which is a Spanish-based international Non-governmental Organization (NGO) promoting the sustainable use of biodiversity and genetic resources based on the control of local communities of their resources and knowledge. For further details on the activities of this organization, see <<http://www.grain.org/about/>> at August 6 2005.

'ensure' the resource-rights of local communities implies the exercise of these rights by the communities themselves, in permitting or refusing access, and controlling the processes for benefit-sharing. When this has been done, then, protecting these rights will require the legislative intervention of states to ensure their inviolability.<sup>144</sup>

In all, the pivotal issue appears to be the determination of the entity with the right to own and grant consent to access biodiversity resources. In addition, the issue of Prior Informed Consent (PIC) for bioprospecting also stands at the centre of the discussions on access to indigenous knowledge systems and resources. In ideal situations, the entity with ownership rights should also exercise the consent right, and *vice versa*. However, the present situation is not ideal, and, attempts by some states to bring local communities into the access process have resulted in confusing situations. This is where states appear to make provisions for these communities to 'control' their resources, but do not, in actual fact, accord them any substantive rights. This has introduced a dimension where an entity or person(s) that has the right to consent to bioprospecting activities does not translate to the person(s) having ownership rights over such resources. It is submitted that such a scenario portends inadequate recognition and protection of indigenous rights. This notwithstanding, for now, where such a right to consent to access exists, it should also incorporate the right for local communities to refuse such access in appropriate circumstances,<sup>145</sup> without any overriding state powers over such decisions.

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<sup>144</sup> An example of the protection from a state was when the Brazilian government took an NGO to court for illegally appropriating the knowledge of Brazilian indigenous groups. See Mario Osava, 'Brazil- Biodiversity: Crackdown on Eco-Pirates' International Press Service, 14 August 1997, cited in Valentina Tejera, 'Tripping Over Property Rights: Is it Possible to Reconcile the Convention on Biological Diversity with Article 27 of the TRIPs Agreement' (1999) 33 *New England Law Review* 967, 972-973.

<sup>145</sup> The circumstances could include cases where access will destroy their cultural patrimony, sacred objects, or the resource(s) in question has been depleted and requires replenishing.

Finally, the discussions in this chapter confirm that indigenous peoples and local communities have gained a degree of recognition within the international community in recent decades.<sup>146</sup> However, it is also clear that sovereign states remain the dominant players and primary subjects of international law, and still dominate ownership and access to biodiversity and genetic resources.<sup>147</sup> In the area of bioprospecting, it is not clear whether the CBD, ITPGR and other like instruments could be considered as being part of the in-roads that have been made by indigenous and local communities, or part of the problem. This is because, in the final analysis, these instruments seem to have glossed over the issues of the nature of control and the scope of rights that indigenous communities should have over biodiversity resources. Instead, the states have been handed all available resource rights to distribute as they deem fit.<sup>148</sup> This explains why, despite the apparent relief that welcomed the coming of the CBD as the comprehensive instrument on biodiversity and genetic resources, indigenous and local communities still feel that they are being left out. It is submitted that considering the acknowledged roles of local communities in this subject area, this is no longer appropriate.

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<sup>146</sup> See Russel L. Barsh, 'Indigenous Peoples: An Emerging Object of International Law' (1986) 80 *American Journal of International Law* 369. Also see generally Jerome Wilson, 'Ethnic Groups and the Right to Self-Determination' (1996) 11 *Connecticut Journal of International Law* 433.

<sup>147</sup> See generally Dianne Otto, 'A Question of Law or Politics? Indigenous Claim to Sovereignty in Australia' (1995) 21 *Syracuse Journal of International Law and Commerce* 65. Contrast with the views expressed in Jordan J. Paust, 'The Reality of Private Rights, Duties, and Participation in the International Legal Process' (2004) 25 *Michigan Journal of International Law* 1299.

<sup>148</sup> It has been noted above that both the CBD and the ITPGR respectively subject their provisions to the local instruments of each state for implementation.

## **Chapter Four**

### **Indigenous Peoples, Prior Informed Consent, and Access to Indigenous Knowledge Systems**



## Chapter Four

# Indigenous Peoples, Prior Informed Consent, and Access to Indigenous Knowledge Systems

### 4. Introduction

The right of indigenous peoples to consent to or to withhold consent from the development of extractable resources located on or under ancestral lands is hotly contested by those in the extractive industries, governments, and even some development theorists.<sup>1</sup>

The last chapter of this work has revealed the complexity that surrounds the issues of ownership and control of biodiversity and genetic resources, and the difficulties that confront indigenous and local communities in that regard. Added to this is the difficulty in determining the full extent of the rights of these communities provided for in the key international instrument in this area, the *Convention on Biological Diversity* (CBD) 1992<sup>2</sup>. One issue that seems to underlie the whole debate is the role of local communities in consenting to access to biodiversity and genetic resources within their domain. While it is now generally accepted in international law that local communities should be consulted on issues affecting their interests, there seems to be less consensus regarding the extent and import of such consultations.<sup>3</sup>

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<sup>1</sup> See Margaret Satterthwaite and Deena Hurwitz, 'The Right of Indigenous Peoples to Meaningful Consent in Extractive Industry Projects: Introduction' (Symposium) (2005) 22 *Arizona Journal of International and Comparative Law* 1..

<sup>2</sup> See The *Convention on Biological Diversity* 1992. For the text of the Convention, see <<http://www.biodiv.org/convention/articles.asp>> at 2 July 2006.

<sup>3</sup> See James Anaya, 'Indigenous Peoples' Participatory Rights in Relation to Decisions About Natural Resource Extraction: The More Fundamental Issue of What Rights Indigenous Peoples Have in Lands and Resources' (2005) 22 *Arizona Journal of International and Comparative Law* 7.

Flowing from the above comments, the first point to note is that it is important that the process of 'consultation' is distinguished from the requirement of 'free prior informed consent' (FPIC) or 'prior informed consent' (PIC) of indigenous communities, when access to their knowledge systems and resources is sought. The rest of this work will use the term PIC. It appears that while the process of consultation seems to indicate a channel for exercising indigenous participatory rights during the access process, the requirement of PIC incorporates an inherent power of veto by the concerned community.<sup>4</sup> On this basis, the requirement of obtaining informed consent would provide a greater measure of utility for indigenous communities in the access process. Conversely, such a requirement may not be acceptable to most states and non-indigenous entities. This is especially so, when it is juxtaposed with the entrenched principle of sovereign right over resources.<sup>5</sup> However, even though the CBD recognizes states rights to regulate and exploit their own resources pursuant to their national policies, it is submitted that such rights must be exercised within the spirit of the Convention, to 'ensure that biological resources sustainably serve the ecological and cultural interests' of those that depend on such resources.<sup>6</sup>

This chapter discusses the issue of PIC as a requirement for accessing indigenous knowledge systems and resources. As will be seen below, this issue is a complex one. The complexity seems to be exacerbated by the seeming 'conflict' between several international instruments that have made provisions in this area. Among these are the CBD and the *ILO Convention (No. 169) Concerning Indigenous and Tribal*

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<sup>4</sup> Ibid.

<sup>5</sup> See for instance, articles 3 and 15(1) of the CBD.

<sup>6</sup> See Lee P. Breckenridge, 'Protection of Biological and Cultural Diversity: Emerging Recognition of Local Community Rights in Ecosystems Under International Environmental Law' (1992) 59 *Tennessee Law Review* 735, 785.

*Peoples in Independent Countries* 1989.<sup>7</sup> In all, however, the core issues seem to relate to the differing interpretations of some provisions of these and other instruments by indigenous communities on the one hand, and by states and non-indigenous entities on the other.

In terms of structure, this chapter is divided in to two parts: the first part discusses the conceptual aspects of the concept of PIC, and why such a concept has become the bedrock of contemporary bioprospecting activities. The second part discusses the tension between the rights of indigenous communities to PIC and the doctrine of state sovereignty. In this respect, the focus will be on the provisions of some international and domestic instruments that seem to engender ambiguity in this area, that is, in terms of the expectations of indigenous and local communities *vis á vis* the states.

#### 4.1. Prior Informed Consent and Indigenous Communities

One of the major insights gained from the last chapter is the appreciation of enormous value that indigenous communities place on their knowledge systems and biodiversity resources.<sup>8</sup> Another insight relates to the concerns that these communities have in relation to possible illicit or uncompensated exploitation of their resources, access undertaken without their considered approval, or for which they derive no benefits. This is where the issue of appropriate consent for bioprospecting activities, comes into focus. From the perspective of indigenous and local communities, such consent has ultimately assumed the status of *sine qua non* element for bioprospecting.

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<sup>7</sup> See ILO Convention (169) Concerning Indigenous and Tribal Peoples in Independent Countries 1989 (entered into force 5 September 1991.) For the text of the Convention, see <<http://www.unhchr.ch/html/menu3/b/62.htm>> at 2 July 2006.

<sup>8</sup> See generally, Victor Toledo, 'Indigenous Peoples and Biodiversity' at <<http://www.iaed.org/cbd/congres/cima99/toledo.pdf>> at 2 July 2006.

Although the issue of benefit-sharing is also very important in this area,<sup>9</sup> local communities consider the issue of PIC as pivotal to any form of access to their knowledge systems and resources.<sup>10</sup> Essentially, after the commencement of the CBD, the situation is that once the informed consent of the relevant state party has been established in resource exploitation, it should be taken as given that the necessary benefit-sharing arrangements have also been concluded between the parties.<sup>11</sup> In other words, the approval of benefit-sharing arrangements between parties to any prospecting activity should indicate that the requisite consent had been obtained under article 15(5) of the CBD. The major question here is: who has the right, or, who should have the right, to give the requisite consent? If the CBD, in giving sovereign resource right to states, addresses the interests of all interested parties, then, there would probably have been no cause for complaints by local communities.

It is fair to say that the international community has now adopted the notion of PIC as the acceptable standard for negotiations between resource prospectors and resource owning states, communities or groups, for purposes of bioprospecting. The importance of the issue of PIC in the process of accessing biodiversity and genetic resources explains why it has been on the agenda of several international organizations: the CBD Council, the World Intellectual Property Organization (WIPO), and the World Trade Organization (WTO), in relation to their respective

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<sup>9</sup> For the difficulties in negotiating benefit-sharing arrangements under the CBD, see GRAIN: 'Biodiversity Convention to Develop "Regime" on Benefit-Sharing' at <<http://www.grain.org/seedling/?id=285>> at 2 July 2006.

<sup>10</sup> See Rekha Ramani, 'Market Realities V. Indigenous Equities' (2001) 26 *Brooklyn Journal of International Law* 1147, 1164-1165.

<sup>11</sup> See generally Gerard Bodeker, 'Traditional Medicinal Knowledge, Intellectual Property Rights and Benefit-Sharing' (2003) 11 *Cardozo Journal of International and Comparative Law* 785, 788-790. Among other things, article 1 of the CBD provides that the objectives of the Conventions are 'the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.'

areas of jurisdiction.<sup>12</sup> The issue of PIC is also of concern to the World Conservation Union (WCU) in relation to the establishment of parks and protected areas.<sup>13</sup> The World Bank and other multilateral development agencies also have interests in PIC with respect to their resettlement policies and other projects affecting indigenous and local communities.<sup>14</sup> In all, however, after decades of negotiation and brainstorming at the U.N. and other world bodies and agencies, the internationally-accepted standard for PIC is that the consent must be 'free, prior, and informed,' (therefore, Free, Prior, Informed, Consent, "FPIC") for it to be valid.<sup>15</sup> According to Bluemel, the principle of FPIC 'ensures that indigenous peoples are properly educated about the benefits and costs' of allowing access to their knowledge systems and resources.<sup>16</sup> The principle also provides indigenous peoples with the right 'to exclude access for uses they find unworthy.'<sup>17</sup>

The issue of PIC has assumed added currency in recent years because of the growing importance of biodiversity and related knowledge, and also, because of the internationalization of indigenous discourse.<sup>18</sup> This development has, in turn,

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<sup>12</sup> See Joji Carino, 'Indigenous Peoples' Right to Free, Prior, Informed Consent: Reflections on Concepts and Practice' (2005) 22 *Arizona Journal of International and Comparative Law* 19, 19-20.

<sup>13</sup> Ibid.

<sup>14</sup> See Galit A. Sarfaty, 'The World Bank and the Internationalization of Indigenous Rights Norms' (2005) 114 *Yale Law Journal* 1791, 1791-1794. Also see the discussions in chapter three on the international legitimization of indigenous interests.

<sup>15</sup> See for instance, articles 10, 11(2), 19, 28(1), and 29(2) of the U.N. *Declaration on the Rights of Indigenous Peoples* 1994. (Adopted by the U.N Human Rights Council on the 29<sup>th</sup> of June 2006.) For the text of the Declaration, see

<<http://www.ohchr.org/english/issues/indigenous/docs/declaration.doc>> at 11 February 2007.

<sup>16</sup> See Erik Bluemel, 'Separating Instrumental from Intrinsic Rights: Toward an Understanding of Indigenous Participation in International Rule-Making' (2005/2006) 30 *American Indian Law Review* 55, 110. See generally Margaret Satterthwaite and Deena Hurwitz, 'The Right of Indigenous Peoples to Meaningful Consent in Extractive Industry: Symposium Introduction' (2005) 22 *Arizona Journal of International and Comparative Law* 1; Joji Carino, 'Indigenous Peoples Right to Free, Prior, Informed Consent: Reflections on Concept and Practice' (2005) 22 *Arizona Journal of International and Comparative Law* 19.

<sup>17</sup> Ibid.

<sup>18</sup> See Stefan Matiation, 'Impact Benefits Agreements Between Mining Companies and Aboriginal Communities in Canada: A Model for Natural Resource Developments Affecting Indigenous Groups in Latin America?' (2002) 7 *Great Plains Natural Resources Journal* 204, 213-215.

engendered extensive debate about the necessity for PIC of local communities for any exploitation of their knowledge systems and resources, or aspects thereof. This notwithstanding, serious concerns about PIC obligations continue to be debated. Added to the issue of the right source of consent, it appears that the global community has not appreciated either the full import of PIC, or that the processes for bioprospecting activities have not met the requisite standards of PIC in several instances. It is arguable that if these standards have been met and the necessary PIC obtained in each case, then the concerns of local communities in this area would have abated since the introduction of the CBD. But this has not been the case.

What, then, are the conceptual elements of PIC and how do these elements feature in regulatory instruments on access to biodiversity and related resources?

## **4.2. Conceptualizing Prior Informed Consent (PIC)**

The concept of PIC is not totally new, and was one of the integral elements of some of the settlements that were negotiated in the 17<sup>th</sup> century between colonial powers and their respective colonies.<sup>19</sup> These settlements were effected in the form of Charters that were issued to several Ventures that intended to establish plantations in the colonies.<sup>20</sup> These Charters usually contained provisions requiring the Ventures to 'plant colonies, build cities, towns and forts, with the consent of the natives...'<sup>21</sup> However, with the documented unpalatable accounts of the effects of

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<sup>19</sup> See Marcus Colchester and Fergus Mackay, 'In Search of Middle Ground: Indigenous Peoples, Collective Representation and the Right to Free, Prior and Informed Consent,' Draft Paper for the 10<sup>th</sup> Conference of the International Association for the Study of Common Property, Oaxaca, (August 2004) at <[http://www.iascp2004.org.mx/downloads/paper\\_107d.pdf](http://www.iascp2004.org.mx/downloads/paper_107d.pdf)> at 26 October 2005.

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

colonialism on former colonies,<sup>22</sup> the extent to which these Ventures adhered to the letters and intent of the Charters on the consent requirement is not clear.

The concept of PIC has metamorphosed over the years. In contemporary discourse, the concept is said to have originated from two distinct areas of concern: the first related to the handling and disposal of hazardous wastes and hazardous substances by states and other entities.<sup>23</sup> These concerns were addressed by the *Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal* 1989.<sup>24</sup> Articles 6, 7, 8, and 9 of the Convention require that consent for trans-boundary movement of hazardous wastes must be approved in writing by all states concerned, including transit states, before such movement could take place. The concept of PIC was later, and more extensively, concretized in the *Rotterdam Convention on Prior Informed Consent* 1998<sup>25</sup> (Rotterdam Convention). The Rotterdam Convention is reputed to have the most developed system of PIC among all international instruments.<sup>26</sup> Articles 5 through 8 of the Convention stipulate stringent procedures for consent under the guidance of the Convention's Secretariat before any transactions in the covered (hazardous) subject matters could be undertaken.<sup>27</sup>

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<sup>22</sup> See for instance, Tayyab Mahmud, 'Colonialism and Modern Constructions of Race: A Preliminary Inquiry' (1999) 53 *University of Miami Law Review* 1219; Peggy Maisel, 'Lessons from the World Conference Against Racism: South Africa as a Case Study' (2002) 81 *Oregon Law Review* 739, 743. For a theoretical perspective on this issue, see generally Jorge Larraín, *Theories of Development: Capitalism, Colonialism and Dependency* (1989) 1-20.

<sup>23</sup> See Laurel A. Firestone, 'You Say Yes, I Say No; Defining Community Prior Informed Consent Under the Convention on Biological Diversity' (2003) 16 *Georgetown International Environmental Law Review* 171, 181.

<sup>24</sup> For the text of the Basel Convention, see <<http://www.basel.int/text/documents.html>> at 26 October 2005. (entered into force 5 May 1992).

<sup>25</sup> For the text of the Rotterdam Convention, see <<http://www.pic.int/en/ViewPage.asp?id=104#Preamble>> at 26 October 2005 (entered into force 24 February 2004).

<sup>26</sup> See Firestone above n 23, 180-181.

<sup>27</sup> Ibid. This PIC system is said to generate and distribute information about chemical properties, their environmental and health effects, and regulations that have been taken. After this information has been distributed internationally, the importing countries must inform the exporters of their decision to consent or refuse import of a particular chemical or pesticide; citing

The second concern linked to the contemporary resurgence of the PIC principles is based on the need to regulate the requirements for performing certain medical procedures<sup>28</sup> that are deemed to require the mandatory informed consent of patients or their guardians.<sup>29</sup> In this context, it is mandatory to establish that the consent of the patient(s) is given freely and devoid of any mistake or coercion and with full authority, for it to be valid.<sup>30</sup>

It is clear that these situations that originally gave rise to the emergence of PIC differ from the present subject area of bioprospecting.<sup>31</sup> However, it is submitted that the crucial trait that runs through all the above situations is the need for full and informed disclosure and appreciation of all relevant information by the parties in the circumstances.

In the specific area of bioprospecting, the concept of PIC recognizes the rights of indigenous communities to 'their lands and resources and respects their legitimate authority to require that third parties enter into an equal and respectful relationship with them, based on the principle of informed consent.'<sup>32</sup> This recognition is crucial, because, as will be seen in the next chapter, local communities have been alleging inappropriate access to their resources, and have labelled these incidents as biopiracy. These allegations, whatever their merits, appear to indicate a systemic failure of the consent process in bioprospecting

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Jonathan Krueger, 'The Prior Informed Consent Procedure for Trade in Hazardous Chemicals and Pesticides' at <[www.environment.harvard.edu](http://www.environment.harvard.edu)> at 27 October 2005.

<sup>28</sup> Ibid. See also S.R. Woodrow and A.P. Jenkins, 'How Thorough the Process of Informed Consent Prior to Outpatient Gastroscopy: A Study of Practice in a United Kingdom District Hospital' *Digestion*, 13 July 2006 at <<http://portal.isiknowledge.com/portal.cgi>> at 14 July 2006.

<sup>29</sup> See Firestone above n 23, 180-181.

<sup>30</sup> Ibid.

<sup>31</sup> Ibid.

<sup>32</sup> See the UN Commission on Human Rights, Sub-Commission on the Promotion and Protection of Human Rights, Working Group on Indigenous Population, (WGIP) Twenty-second Session 9-13 July 2004, at <<http://www.unhchr.ch/indigenous/groups-01.htm>> at 27 October 2005.



activities. In 2001, the UN Commission on Economic, Social and Cultural Rights (CESCR) regrettably noted, that 'traditional lands of indigenous peoples have been reduced or occupied, without their consent, by timber, mining and oil companies at the expense of the exercise of their culture and...the ecosystem.'<sup>33</sup> Although this observation does not relate to bioprospecting in the context of the CBD, as was noted in chapter three, local communities treat all cases concerning the exploitation of their resources without the requisite consent as the same.

### **4.3. The Elements of Prior Informed Consent (PIC)**

Several international and domestic instruments that seek to regulate transactions in the area of access to biodiversity and indigenous knowledge systems have dealt, in varying degrees, with the issue of the consent of local communities to bioprospecting activities. While some of these instruments made only tangential references to the issue without elaborating on its essentials, others went further to define what constitutes effective consent in their respective contexts.

Since the CBD is generally regarded as the principal international instrument in regulating access to biodiversity and genetic resources,<sup>34</sup> it seems proper to commence the discussions on the elements of PIC with the Convention.

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<sup>33</sup> See the Concluding Observations of the Committee on the Economic, Social and Cultural Rights: Columbia 30//11/2001.E/C.12/Add.1/74, at para. 12 in Colchester and Mackay above n 19, 10.

<sup>34</sup> The ITPGR deals specifically with plant genetic resources and adopts a different approach to the access issue. For instance in articles 10 through 13 the treaty adopts a centralized system: 'the multilateral system of access' whereby states alone play any tangible role(s) in permitting plant resources to be listed in the system to be accessed by others. For the text of the Treaty, see <[ftp://ext-ftp.fao.org/ag/cgrfa/it/ITPGR.pdf](http://ext-ftp.fao.org/ag/cgrfa/it/ITPGR.pdf)> at 28 October 2005.

### 4.3.1. PIC under the CBD and other Relevant International Instruments

Article 15(5) of the CBD provides that, access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that Party.' In a related provision, article 15(4) stipulates that where access to genetic resources is provided, it must be on mutually agreed terms between the parties. With respect to the interests of local communities, article 8(j) of the CBD requires states to, *inter alia*, 'respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles.' They are also required to promote the wider application of such knowledge systems 'with the approval and involvement of the holders of such knowledge.'

The provisions of article 8(j) of the CBD differ from those of article 15 (4) and (5) in two major respects. First, the provisions of article 15 are targeted at proposed transactions for access to biodiversity resources between respective states and potential resource prospectors. On the other hand article 8(j) deals with the standard to be adopted by states in dealing with the knowledge and innovations of indigenous and local communities within their territories. In strict terms, therefore, article 8(j) does not deal with access to biodiversity and genetic resources. On the contrary, it seeks to promote the preservation and wider application of indigenous knowledge systems and innovations, especially those that are relevant to the conservation and sustainable use of biodiversity resources.<sup>35</sup> This implies that the 'approval and involvement' of local communities required under article 8(j) are in

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<sup>35</sup> The only problem with this assertion is that, as was discussed in chapter one, considering the holistic nature of indigenous knowledge systems, it is difficult to separate their knowledge systems from their biodiversity resources and their uses.

respect of the modalities for the preservation and wider application of such knowledge and innovations.

The CBD does not define PIC and does not specify its implications in the context of the Convention's usage. However, the *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization* 2002 (Bonn Guidelines) have extensive provisions in this respect. Paragraphs 26 through 50 of the *Bonn Guidelines* elaborate on the principles and elements of PIC, including the procedures to be adopted in seeking PIC, where necessary.

Under paragraph 26 (d) of the *Bonn Guidelines*, the basic principles of PIC include obtaining the consent of the relevant Competent National Authority (CNA) and, subject to national legislation, the consent of relevant stakeholders, including indigenous and local communities. Paragraph 28 requires that PIC should be obtained from the states concerned, except where the states determine otherwise.<sup>36</sup> Paragraph 34 of the Guidelines requires that PIC should be based solely on the specific uses for which such consent has been granted, while under paragraph 37, any permission to access genetic resources does not necessarily authorize the use of its associated knowledge. This presupposes that any use of such associated knowledge will have to be based on fresh independent authorization by the resource provider(s). All these provisions are commendable if adhered to by all the parties involved in bioprospecting activities.

The first point to note is that under paragraph 7(1)(a) of the *Bonn Guidelines*, the provisions are voluntary in nature and non-binding on the state parties. As a consequence, the only provisions binding on states with respect to consent are those of the CBD, as implemented domestically. For access to biodiversity and genetic resources, article 15 (5) of the CBD requires the consent of the states and no other entity, except to the extent that the particular state(s) decides otherwise. In

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<sup>36</sup> This is a replication of article 15(5) of the CBD.

any event, the Guidelines do not derogate from the basic principles of the exclusivity of a states' right to determine consent requirements. The situation under the CBD is that the rights of indigenous and local communities to exercise control over access to biodiversity resources are to be stipulated by domestic legislation.

The above trend is also reflected in the UN *Draft Declaration on the Rights of Indigenous Peoples* 1994 (Draft Declaration). Article 30 of the Declaration provides, *inter alia*, that indigenous and local communities have the right to require that states obtain their 'free and informed consent prior to the approval of any project affecting their lands, territories and other resources, particularly in connection with the ...exploitation of mineral, water or other resources.' This provision seems to suggest that indigenous communities do not have the capacity to approve or decline any access to, or the exploitation of, resources in their domain, but rely on states for such actions. Even though the Draft Declaration is dedicated solely to protecting indigenous interests, it has been unable to extricate its provisions from the principle of states sovereign resource rights, which is usually at the heart of most international instruments.

The International Labour Organization's (ILO) *Convention 169 Concerning Indigenous and Tribal Peoples in Independent Countries* 1989 (ILO Convention)<sup>37</sup> makes some apposite provisions with respect to indigenous peoples and their resources. Article 15 (2) provides, *inter alia*, that in situations 'where a state retains the right of ownership of mineral or sub-surface resources or rights to other resources... governments shall establish or maintain procedures...' <sup>38</sup> that will guarantee consultation with indigenous peoples. The consultation in this instance

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<sup>37</sup> Adopted by the General Conference of the International Labour Organization (ILO) at its seventy-sixth session, June 27 1989 (entered into force 5 September 1991). For the text of the Convention, see <<http://www.unhchr.ch/html/menu3/b/62.htm>> at May 16 2005.

<sup>38</sup> Article 15(1) provides that the rights of the peoples to their natural resources shall be safeguarded.

is for the purposes of ascertaining the extent to which indigenous interests could be otherwise prejudiced by the exploitation of any resource(s) within indigenous peoples' territories, and possibly to receive their consent to such activity.

The ILO Convention does not indicate the extent and nature of consultation that should take place in the circumstances. It is also unclear whether 'consultation' in the context of the Convention would amount to a right for local communities to give or withhold consent. In any case, even if it so, the provisions do not indicate what should happen in the event of a deadlock between the states and local communities. This is despite the fact that article 6(2) of the Convention requires that any consultations between the parties should be undertaken 'in good faith and in a form appropriate to the circumstances, with the objective of achieving agreement or consent to the proposed measures.' However the fact that article 6(2) requires 'agreement or consent' to be reached indicates that the consultation process is not meant to be mere formality, and that substantive participation of local communities is required.

Finally, the *African Model Legislation - for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources 2000* (African Model Law) makes germane provisions in this respect.<sup>39</sup> The combined effect of article 3, 4, 18, 19, and 20 of the African Model Law is to empower local communities in terms of granting access to their knowledge systems and biodiversity resources. For instance, while articles 18 and 19 allow local communities to either grant or withhold consent to external access, article 20 allows these communities to withdraw their consent where already granted. This

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<sup>39</sup> For the text of the African Model Law, see <<http://www.grain.org/brl/?docid=798&lawid=2132>> at 9 February 2007. There is also the *Pacific Regional Framework for the Protection of Traditional Knowledge and Expressions of Culture 2002*. To review the Framework, see <[http://www.unesco.org/culture/copyright/folklore/html\\_eng/hanoi.shtml](http://www.unesco.org/culture/copyright/folklore/html_eng/hanoi.shtml)> at 9 February 2007.

is permissible where allowing access will jeopardize the integrity of the natural or cultural heritage of the communities concerned. These are far-reaching and apposite provisions in the present context.

#### **4.3.2. PIC and Domestic Instruments**

In domestic arena, the issue of determining access to biodiversity resources is usually complex, even with states' sovereign resource rights. This is due to the importance attached to these resources and the need to balance the interests of states with those of local communities. As noted above, article 15(1) of the CBD gives states the authority to determine to biodiversity resources, subject to their national legislation. This, therefore, makes domestic instruments very central to the practical implementation of the framework provisions in international instruments. It presupposes that, where states decide not to delegate the authority to permit access under article 15(5), every other entity and stakeholder, including indigenous and local communities, would have no primary right in this respect.

Some states have enacted domestic instruments making elaborate provisions in the area of PIC and exploitation of domestic resources, generally following the Bonn Guidelines. While some states have permanently decentralized the consent process and the entities that can grant access for bioprospecting activities, others have centralized the process by concentrating powers on the states and their entities. In this section, the legislative provisions in five states will be used for representative discussions on the issue of PIC in domestic arena. The states are Australia, Brazil, India, the Philippines, and South Africa. In the present context, these states have three things in common: the first is that they are well-endowed in terms of holding

a percentage of global biodiversity resources.<sup>40</sup> Secondly, they have enacted national domestic provisions regulating access to biodiversity resources, and thirdly, they are home to a sizeable number of indigenous and local communities.<sup>41</sup>

### **a. Australia**

In Australia the *Environmental Protection and Biodiversity Conservation Act* (EPBCA) (Cth) 1999<sup>42</sup> is the central instrument that deals with the matters relating to access to biodiversity and related issues. Among its various objectives, section 3(1) (d) and (f) states that the Act seeks 'to promote a co-operative approach to the protection and management of the environment'. This process is to involve the governments, the communities, land-holders and several indigenous peoples.<sup>43</sup> The Act further recognizes the role of indigenous peoples in the area of conservation and sustainable use of biodiversity resources. Under section 3(1) (g) Act, it seeks to 'promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in co-operation with, the owners of the knowledge.'

Apart from the preceding provisions, section 505(A) and (B) of the Act established the Indigenous Advisory Committee (The Committee). As its name denotes the Committee's functions are 'advisory' in nature. The Committee members advise the Minister on the operation of the Act 'taking into account the significance of

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<sup>40</sup> See Jann Williams, 'Australia State of the Environment Report 2001 (Theme Report) at <<http://www.deh.gov.au/soe/2001/biodiversity/biodiversity01-3.html>> at 11 August 2006.

<sup>41</sup> For instance, Brazil is said to be home to about 3 to 5 million indigenous peoples. See the U.S. Library of Congress 'The Indigenous Population' at <<http://countrystudies.us/brazil/4.htm>> at 11 August 2006.

<sup>42</sup> For the text of the EPBCA, see <<http://www.deh.gov.au/epbc/about/index.html>> at 11 August 2006.

<sup>43</sup> Ibid.

indigenous peoples' knowledge of conservation, management and sustainable use of the land and biodiversity.'

In the area access for bioprospecting activities, the *Environmental Protection and Biodiversity Conservation (Amendment) Regulations 2005*<sup>44</sup> (the Regulations) made pursuant to the EPBCA, have extensive provisions concerning indigenous and local communities. For instance, under paragraph 8A.03,(3)(a), 'access to biological resources' does not include activities by indigenous peoples in exercise of their native titles rights and interests. Paragraph 8A.04 classifies 'access providers' in terms of the person(s) legally holding the land and this has been between the Commonwealth, its agencies, and indigenous communities.<sup>45</sup> In general, however, under paragraphs 8A.06 and 17, access to biological resources requires a permit issued by the responsible Minister.

In relation to prospecting activities on indigenous lands, the Minister is to issue the relevant permit only when he is satisfied that the local community concerned has given their informed consent to benefit-sharing agreement.<sup>46</sup> Under paragraph 8A.08, such an agreement must, among other things, be explicit on arrangements for sharing the benefits between the parties, while containing a statement about the use of any indigenous knowledge, the source of such knowledge, and statement on any commitment to pay for the use of such knowledge. It must also contain the details of the benefits due to the access provider(s) for granting access to the prospector(s).<sup>47</sup>

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<sup>44</sup> Amending the *Environmental Protection and Biodiversity Conservation Regulations 2000*. For the text of the 2005 Regulations, see <<http://www.deh.gov.au/epbc/about/index.html>> at 11 August 2006.

<sup>45</sup> See subparagraphs (a) through (i) of paragraph 8A.04.

<sup>46</sup> See paragraphs 8A.07, 8A.09, and 8A.11 of the Regulations.

<sup>47</sup> See subparagraph (a) through (l) of paragraph 8A.08.



In implementing the CBD, the Bonn Guidelines, and other relevant international instruments on biodiversity and genetic resources, Australia has adopted the *National Consistent Approach for Access to and the Utilisation of Native Genetic and Biochemical Resources* (NCA) in 2002.<sup>48</sup> The NCA is a set of principles that are meant to guide the development or review of legislative, administrative or policy frameworks in the area of access to biodiversity resources within Australia.<sup>49</sup> This also ensures that there are no duplication of efforts among the states, and between the states and the federal government, while maintaining uniform standard in regulating access to biodiversity resources.<sup>50</sup>

For indigenous communities, the relevant provisions of the NCA General Principles are in paragraphs 7 and 11. While paragraph 7 recognises 'the need to ensure the use of traditional knowledge is undertaken with the cooperation and approval of the holders of that knowledge,' paragraph 11 provides that the development of any framework should be done 'in consultation with stakeholders, indigenous peoples and local communities.'

Taken together, the Regulations and the NCA principles constitute a bold step in the right direction for local communities in Australia in the area of access to their resources. However, in terms of the extent of the rights of local communities to refuse consent to bioprospecting activities, some issues remain. As noted above, the Regulations require that the Minister must ensure that the informed consent of local communities is received before issuing a bioprospecting permit. Even though the Minister has the right to consult any person or community before issuing a permit,<sup>51</sup> the Regulations do not indicate that local communities have the right to

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<sup>48</sup> For details on the NCA, see <<http://www.anbg.gov.au/anbg/NCA/understanding-nca.html>> at 29 June 2006.

<sup>49</sup> Ibid.

<sup>50</sup> Ibid.

<sup>51</sup> See paragraph 8A.15 of the Regulations.

refuse to give such consent when it is sought, for instance, for reasons of cultural sensitivity. Furthermore, can the Minister refuse to issue a permit even when local communities have accepted and consented to the terms of the agreement? In essence, can the Minister overrule the decision of a local community on access issues where the approval of the communities has been granted or denied? Under the Regulations, the answer is not clear.

## **b. Brazil**

In terms of biodiversity and genetic resources, Brazil has been consistently listed as one of the richest countries in the world.<sup>52</sup> As a consequence, issues relating to access to biodiversity and genetic resources generate particular interest.<sup>53</sup> Due to the importance of these resources, and the large number of indigenous communities in the country,<sup>54</sup> legislative measures have been put in place to regulate access and deal with indigenous issues.

In August 2001, the President of Brazil, acting under the powers conferred on him by article 62 of the *Constitution of Brazil* 1988,<sup>55</sup> adopted the *Provisional Measure on Access to Genetic Resources and Traditional Knowledge* No. 2.186<sup>56</sup> (hereafter) (PM). The law was initially meant to be provisional in nature, but in June 2005

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<sup>52</sup> See Jennifer L. Rich, 'Brazil: Earth's Laboratory' (Documentary on NBC Network, July 5 1999) at <<http://www.msnbc.com/news/263403.asp?cp1=1>> at May 28 2005. See also Albena P. Petrova, 'From the Amazon to the Alps: A Comparison of the Pharmaceutical Biodiversity Legal Protection in Brazil and Switzerland' (2003) 15 *Pace International Law Review* 247, 250-251.

<sup>53</sup> Ibid 254 to 256.

<sup>54</sup> See Williams above n 40.

<sup>55</sup> The powers given under the article are for 'urgent or emergency' issues that require urgent actions. It is unclear why the Brazilian government exercised such powers to adopt the Provisional Measure. For the *Constitution of Brazil* 1988, see <<http://www.oefre.unibe.ch/law/icl/br00000.html>> at May 28 2005.

<sup>56</sup> For the text of the *Brazilian Provisional Measure* 2001, see <<http://www.grain.org/brl?docid=850&lawid=1768>> at May 28 2005.

Regulations were passed implementing the PM, which is now in force as *Decreto N° 5459, (Reglamentario de la MP N° 2186-16) 2005*.<sup>57</sup>

The PM classifies biodiversity resources and 'genetic heritage' (genetic resources) as national resources,<sup>58</sup> and, under article 16, access to *in situ* genetic materials is only allowed to a national institution (public or private) carrying on research in biodiversity or development areas.

With respect to indigenous knowledge allied to genetic resources, articles 8 and 9 of the PM also guarantee indigenous and local communities the rights to create, develop and decide on the use of their knowledge related to genetic heritage. Although article 16(9) requires the prior consent of indigenous communities when access is to be in their territories, article 17 states that such consent could be dispensed with in the public interest. The PM does not elaborate on what could constitute 'public interest' and this is to be determined by the Minister for the Environment, acting as the head of the Management Council (MC) established under article 10. This is not enough. Considering that most indigenous and local communities have had frosty relationships with their host states, it would be in the interest of clarity and certainty that items and events that could amount to 'public interest' be itemized and agreed to by the parties.

In line with the above comment, indigenous and local communities in Brazil have criticized the PM (especially article 17) as a blueprint for perpetuating illegality. They argue that circumscribing their informed consent rights is a breach of their permanent ownership and usufruct rights over lands as guaranteed under the Constitution.<sup>59</sup> Article 231(2) of the Constitution grants indigenous peoples

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<sup>57</sup> For the text of the Law see, <<http://www.grain.org/brl/?docid=81999&lawid=2340>> at 11 August 2006.

<sup>58</sup> See article 1 of the Provisional Measure 2001.

<sup>59</sup> See Instituto Socioambiental, 'Traditional Knowledge and Biodiversity' at

permanent rights of possession to, and exclusive use of the riches of the soil, rivers, and lakes, on lands that they have traditionally occupied. This provision appears to support the argument of indigenous and local communities that their rights cannot be circumscribed by the PM.

### c. India

In India, the system of access relies strongly on implementing the provisions of the CBD, and there are several laws that deal with different issues concerning access to biodiversity and genetic resources.<sup>60</sup> However, the current central legislation that regulates this subject area is the *Biological Diversity Act 2002*<sup>61</sup> (the Biodiversity Act). The Preamble to the Act indicates that it is to give effect to the provisions of the CBD to which India is a Contracting Party.<sup>62</sup> The *Biodiversity Act* is complemented by the *Biological Diversity Rules 2004*<sup>63</sup> (Biodiversity Rules).

The *Biodiversity Act* seems to distinguish the procedures and rules of access for Indians and Indian-registered corporations on one hand, and for non-Indians and foreign corporations on the other. Section 8 through 18 of the Act established the National Biodiversity Authority (NBA), while section 22 established the State Biodiversity Authority (SBA) for the constituent states. The NBA is the central

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<<http://www.socioambiental.org/pib/english/rights/conhebioi.shtm#t1>> at May 28 2005.

<sup>60</sup> There are several specific laws that deal with some specific subjects that could be extended to form part of the general plant and animal biodiversity. For instance, the *Proposed India Seeds Bill 2004* (proposed as a replacement to the Seeds Act 1966) seeks to regulate the quality of imported and exported seeds to and from India. For the text of the *Seeds Bill 2004*, see <<http://www.grain.org/brl/?docid=891&lawid=2353>> at June 3 2005. There is also the *Protection of Plant Varieties and Farmer's Rights Act 2001* and the *Protection of Plant Varieties and Farmer's Right's Rules 2003*. For the text of Acts, see

<<http://www.grain.org/brl/?docid=888&lawid=1365>> at June 3 2005.

<sup>61</sup> For the text of the Indian *Biological Diversity Act 2002*, see

<<http://www.grain.org/brl/?docid=322&lawid=1378>> at June 1 2005.

<sup>62</sup> The state of India signed the CBD on June 5 1992 and ratified same on February 18 1994.

<sup>63</sup> For the text of the Indian *Biological Diversity Rules 2004*, see <[http://www.grain.org/brl\\_files/India-biodiversity-rules-2004.pdf](http://www.grain.org/brl_files/India-biodiversity-rules-2004.pdf)> at June 1 2005.

body within India to regulate access to biodiversity resources or related knowledge for any purposes whatsoever, ranging from research, commercial use or what the Act calls 'bio-survey and bio-utilisation.'<sup>64</sup>

Under section 3(1) and (2) of the Act, non-Indians, citizens of India who are ordinarily resident outside the country, foreign corporations or Indian-registered corporations with foreign equity or management, require the approval of the NBA to access biodiversity resources and related knowledge. This section seems to suggest that Indian citizens have an unfettered right to access biodiversity resources without the need for any governmental approval. On the contrary, sections 7 and 24 of the Act stipulate that any person who is a citizen of India or a body corporate, association or organisation registered in India, can only access biodiversity resources for commercial purposes, bio-survey and bio-utilisation after giving prior intimation to the SBA. This presupposes that while the NBA is responsible for regulating prospective bioprospecting activities of non-Indians, any citizen of India will have to apply for such access through a state's SBA under section 23.

It is instructive that with respect to access to biodiversity resources the Act did not make any general or specific provisions concerning indigenous peoples and local communities. Although section 21 (1) and (2) (d) refers to 'local bodies and local people' in relation to sharing the benefits of biodiversity utilization, it does not ascribe any rights or roles to indigenous groups in bioprospecting activities.<sup>65</sup> This

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<sup>64</sup> Section 2(d) of the Act defines 'bio-survey' and 'bio-utilisation' as 'survey or collection of species, subspecies, genes, components and extracts of biological resource for any purpose and includes characterisation, inventorisation and bioassay.'

<sup>65</sup> Article 2(h) of the Act defines 'local bodies' as meaning 'Panchayats and Municipalities, by whatever name called'

is surprising, considering the number of indigenous populations in India<sup>66</sup> and the amount of indigenous medicinal knowledge and biodiversity that emanate from the country.<sup>67</sup> This neglect of indigenous interests is probably based on section 36 (1) and (2) of the Act, which indicates that it is responsibility of the central government to develop national strategies, plans and programmes for the conservation and sustainable use of biodiversity and related resources. In so doing, the central government could, where appropriate reasons exist, issue directives to the state governments and also offer technical assistance where needed. Although this is apparently in line with India's obligations under the CBD, whether it justifies the scant interest paid to indigenous role in biodiversity prospecting is debatable.

The *Biodiversity Rules* also have negligible provisions with respect to the interests of indigenous and local communities. Although Rule 14 is entitled 'procedure for access to biological resources and associated traditional knowledge,' it is only sub-rule (3) that mentions 'consultation with concerned local bodies'. Several sub-rules under Rule 14 refer to 'traditional or associated knowledge' but there is no direct reference to indigenous peoples as a group. Making provisions for indigenous peoples as a group has the tendency to augment the exercise of the collective rights held by communities in variations that have been determined by their internal dynamics and rules of social cohesion.<sup>68</sup>

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<sup>66</sup> From the 1981 census, India's indigenous population was put at 53 million people. See Marco Knowles, 'the impoverishment of Adivasis' at <http://www.developmentinaction.org/newspages/index/14.php> at 12 August 2006.

<sup>67</sup> The Turmeric and the Neem tree controversies that reverberated around the intellectual property world were both related to the use of India's traditional biodiversity resources. See generally, Emily Marden, 'The Neem Tree Patent: International Conflict over the Commodification of Life' (1999) 22 *Boston College International and Comparative Law Review* 279; Rekha Ramani, 'Market Realities and Indigenous Equities' (2001) 26 *Brooklyn Journal of International Law* 1147.

<sup>68</sup> See generally Angela Riley, 'Straight Stealing: Towards an Indigenous System of Cultural Property Protection' (2005) 80 *Washington Law Review* 69; Sharon H. Verne, *Our Elders Understand Our Rights: Evolving International Law Regarding Indigenous Rights* (1998) 8-10.

## d. The Philippines

In the Philippines, the *Administrative Order No. 96-20 of 1996* (the Order) (*Implementing Rules and Regulations on the Prospecting of Biological and Genetic Resources*)<sup>69</sup> is clear on PIC and the role of local communities. Section 2(w) of the Order defines PIC as consent that has been obtained from indigenous peoples, local community, the Protected Areas Management Board (PAMB), or a private land owner. This is after a full disclosure of the 'intent and scope of the bioprospecting activity in a language and process understandable to the community.' The processes of disclosure and consent are to be completed before any bioprospecting activity could be undertaken.

In addition to the above, under section 3(g) of the Philippines' *Indigenous Peoples Rights Act 1997*<sup>70</sup>, PIC is defined as the consensus of all members of any concerned indigenous and local communities, to be determined in accordance with their respective customary laws and practices. The section further provides that, for any consent to be valid, it must have been 'free from any external manipulation, interference, coercion, and obtained after fully disclosing the intent and scope of the activity' and understood by the community.<sup>71</sup>

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<sup>69</sup> For the text of Order No. 96-20 of 1996, see <<http://www.chmbio.org.ph/dao20-96.html>> at 29 October 2005.

<sup>70</sup> The Act is formally 'An Act to Recognize, Protect and Promote the Rights of Indigenous Cultural Communities/Indigenous Peoples, Creating a National Commission on Indigenous Peoples, Establishing Implementing Mechanisms, Appropriating Funds Therefore, and for Other Purposes' 1997. For the text of the Act, see <<http://www.grain.org/brl/?docid=801&lawid=1508>> at 11 August 2006.

<sup>71</sup> This is similar to section 2 of the Guidelines on Prospecting 1995 (Executive Order No. 247). For the text of the Order, see <[http://www.grain.org/brl\\_files/philippines-bioprospecting-1995-en.pdf](http://www.grain.org/brl_files/philippines-bioprospecting-1995-en.pdf)> at 11 August 2006.

These are important provisions that consider the local peculiarities and customs of local communities in the consent process. Such a situation makes it easier for these communities to understand the cultural implications of what they consent to, and reduces the areas of disagreement between the communities and resource prospectors. Even though there are some limitations that could be identified in terms of the use of customary laws as tools for contractual purposes,<sup>72</sup> such limitations are to be juxtaposed against the added certainty that local communities will enjoy by dealing with their customary laws.

### **e. South Africa**

In South Africa, the *National Environmental Management: Biodiversity Act 2004*,<sup>73</sup> regulates the conservation, management and access to biodiversity resources, the sustainable use of biodiversity resources, and the sharing of the proceeds from bioprospecting activities.

Under article 2(a)(i)(ii)(iii) and (b) of the Act, some of its major objectives include, providing for the sustainable use of indigenous biological resources and ensuring the equitable sharing of the benefits of any such use. These objectives are to be achieved while giving effect to South African obligations under binding international biodiversity-oriented instruments.<sup>74</sup> This seems to refer to the CBD and the *Biosafety Protocol*,<sup>75</sup> the two major international instruments relating to biodiversity resources to which South Africa is a signatory.

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<sup>72</sup> Some of these limitations are discussed in chapter seven of this work.

<sup>73</sup> For the text of the *Biodiversity Act 2004* see

<[http://www.environment.gov.za/PolLeg/Legislation/2004Jun7\\_2/Biodiversity%20Act-7%20June%202004.pdf](http://www.environment.gov.za/PolLeg/Legislation/2004Jun7_2/Biodiversity%20Act-7%20June%202004.pdf)> at June 10 2005.

<sup>74</sup> This provision is also amplified under article 5 of the Act to the same effect.

<sup>75</sup> South Africa ratified the CBD on November 2 1995 and the *Biosafety Protocol* on the 14 of August 2003.



Article 3 of the Act provides that the state, through its responsible agencies, will act as a trustee to implement the Act, by conserving and managing the country's biodiversity and genetic resources. This is said to be in fulfilment of the state's responsibility to ensure the peoples' right to the environment, as provided for under section 24 of the *Constitution of South Africa* 1996.<sup>76</sup> The Act does not state what the term 'trustee' means, or the extent of the powers of the state to act as such. In administering the Act, articles 10 through 32 establish the National Biodiversity Institute (NBI) as a juristic personality saddled with multifarious responsibilities. Under article 11 these responsibilities include the monitoring of the status of the state's conservation and biodiversity, establishing and monitoring botanical gardens, and monitoring the impact of genetically modified organisms (GMOs) in the environment. The NBI also undertakes the collation of information, promotion, researching and maintaining a database in the area of indigenous biological resources.

In the specific area of bioprospecting, article 80(2) of the Act stipulates that indigenous biological resources include any plant and animal varieties or other organisms of indigenous species and their derivatives, whether wild, cultivated, bred in captivity or altered by the application of biotechnology.<sup>77</sup> This also includes exotic plants, animals and other organisms, either sourced from the wild or otherwise, or any version thereof modified by biotechnology.

Article 81(1) of the Act prohibits any form of bioprospecting activities with respect to indigenous biological resource(s) without the necessary permit having been issued by Minister responsible for the environment. A permit is also required for the exportation of indigenous biological resource(s) for the purpose(s) of

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<sup>76</sup> For the text of the *South African Constitution* 1996, see <<http://www.polity.org.za/html/govdocs/constitution/saconst02.html?rebookmark=1>> at June 10 2005.

<sup>77</sup> Article 1 of the Act gives a slightly different definition to 'indigenous biological resources' in matters not relating to bioprospecting.

bioprospecting or any other form(s) of research.<sup>78</sup> Article 81(2) requires a full disclosure from the prospective applicant(s) for a bioprospecting permit as to the nature of the proposed activity, and the particular indigenous biological resource(s) sought to be accessed.

In discussing access to indigenous biological resources, it is fair to say that it is not clear what the rights of the various indigenous and local communities are under the Act, since they are not expressly specified. It is submitted that a concise stipulation of the rights and responsibilities of the various indigenous communities in relation to access issues would have imported more clarity into the process.

This notwithstanding, article 82(1) (b) (i) (ii) requires that the Minister should, before granting any bioprospecting permit, ensure that the interests of indigenous communities involved are effectively protected. These include the communities whose customary or traditional uses of the particular biological resource(s) concerned will contribute to, or form part of, the proposed bioprospecting activity. Also, the communities whose knowledge of, or discoveries about, the particular indigenous biological resources in question are to be used for the proposed bioprospecting activity. This is an attempt to protect the interests of local communities in their resources. However, there are no clear guidelines as to the roles that local communities could play in this process and whether the Minister is obliged to take such roles into consideration in reaching a decision.

It is noteworthy that article 82 (3) stipulates that a permit can be issued in respect of resource(s) belonging to indigenous communities only on three conditions: (a) the applicant for a permit must have disclosed all material information relating to the bioprospecting activity to the relevant indigenous community. (b) On the basis

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<sup>78</sup> See article 81(1) of the Act.

of this disclosure, the applicant has obtained the community's prior consent to use any of their knowledge or discoveries about the biological resource(s) being accessed. (c) The applicant and the relevant indigenous community must have entered into a benefit-sharing agreement that provides for sharing by the relevant indigenous community in any future benefits derivable from the bioprospecting activities. It is also an additional requirement that the Minister must approve the terms of any benefit-sharing agreement before such an agreement could be valid.

The South African provisions are similar in several respects to those in Australia, and for local communities, represent a positive, even if not the most desirable step, in the area of access to biodiversity resources. In their actual application, however, it could be seen that most of the laws discussed above still vest enormous powers in state authorities. In essence, in most cases, it will be the states that will determine what is good or not for local communities in terms of whether or not to grant access to their resources. This is a drawback, since such laws have not significantly elevated the position of indigenous and local communities in the whole access process.

The discussions above on the consent provisions in domestic instruments are summarized in a tabular form below.

**TABLE 1**  
**SUMMARY OF DOMESTIC INSTRUMENTS**

Country: Instrument	Binding Instrument?	Right to Consent
Australia: Environmental Protection and Biodiversity Conservation Act 1999 (EPBCA), EPBC Rules 2000 (as Amended)	Yes	The State
Brazil: Provisional Measure on Access to Genetic Resources and Traditional Knowledge 2001 (Decreto No. 5459 2005)	Yes	The State
India: Biodiversity Act 2002, Biodiversity Rules 2004.	Yes	The State
The Philippines: Executive Order No. 247 1995, Implementing Rules and Regulations on the Prospecting of Biological and Genetic Resources 1996, Indigenous Peoples' Rights Act 1997.	Yes	Local Communities (For their resources).
South Africa: National environmental Management: Biodiversity Act 2004.	Yes	The State

The discussions above have shown two major trends in the areas of consenting to access to biodiversity and genetic resources: the centralized system, as is the case in Australia, India, Brazil and South Africa, where states and their agencies are responsible for granting consent or permit for bioprospecting. The other is the decentralized system, which is obtainable in the Philippines,<sup>79</sup> where procedures for access and PIC are defined and articulated based on the customary laws, languages, and traditions of the local communities. In this instance, the communities play prominent and substantive roles in the access process.

#### **4.3.3. Juxtaposing the International and Domestic Positions**

The above discussions reveal a contrast between international and domestic practices relating to PIC. While the CBD principally vests the authority to grant access to biodiversity resources in the states, domestic instruments in a state such as the Philippines decentralize this authority, vesting controlling rights in local communities. The decentralized system is aimed at allowing the most appropriate entity to oversee the access process at each point in time. For instance, under section 5(1) of the Philippines Order 96-20, (Implementing Rules) where prospecting activities for biodiversity resources are to take place within areas classified as ancestral lands, it is only the consent of local communities that would be required for such activities. Furthermore, under section 6(1)(3) of the Order, it is the entity responsible for the area housing the resource(s) to be prospected (indigenous and local communities, PAMB or private individuals), that is authorized to issue PIC Certificate confirming that access has been granted.

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<sup>79</sup> Peru is another country that has this decentralized system, which is not discussed in this work.

The systems in Australia, Brazil, and South Africa could be described as the middle course between the decentralized system in the Philippines and the highly centralized system in India. In this middle course position, local communities are consulted and may be required to approve access, but do not have the right to block the consent process, and local customs and traditions do not play any roles in the whole process.

The major implication of the decentralized system is that it establishes a 'tiers system,'<sup>80</sup> whereby the states are not the only entity authorized to permit access to biodiversity resources and related knowledge. This is especially important with knowledge systems and resources that have long been nurtured and used by indigenous and local communities for their subsistence. The second implication is that there is the tendency for local communities to use their traditional criteria, based on their customary laws and traditional practices, in granting or declining access to their resources. In this way, the tensions that usually emanate from allegations that consent could have been based on ill-founded procedures are minimized. Furthermore, a decentralized process also allows each indigenous and local community to define its own priorities and exercise its prerogatives accordingly in deciding whether to allow or decline access to a particular resource or knowledge system. Finally, a decentralized system permits the community concerned to decide whether proposed access to any of its resource serves its overall interests in terms of social and normative acceptability, environmental practices, and other advantages that should necessitate access.

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<sup>80</sup> See Sarah A. Laird and Flavia Noejovich, 'Building Equitable Research Relationships with Indigenous Peoples and Local Communities: Prior Informed Consent and Research Agreements' in Sarah A. Laird (ed), *Biodiversity and Traditional Knowledge: Equitable Partnerships in Practice* (2002) 179, 190.

Although the CBD, as complemented by the *Bonn Guidelines*, leaves open the possibility that states might delegate the authority to authorize access to other entities,<sup>81</sup> the main problem arises when states do not exercise the option to delegate such authority. It appears that when there is no delegation of authority the situation might help in perpetuating allegations of biopiracy. As will be seen in the next chapter, the Western Australian Smokebush case is a classical example of this situation, even though the incident happened before the commencement of the CBD. Whereas the Western Australian government and the company (Amrad) treated the issue as a symbiotic case of research and development collaboration, indigenous communities in Western Australia and around the world treated it as a case of biopiracy of both resources and associated knowledge.

The important issue is to decipher why situations like the Smokebush arose and continue to exist in several countries. It seems that the particular situation was traceable to the centralized process for granting access to biodiversity resources in Australia, that is, by state authorities alone. This trend, which is reflective of most international instruments regulating this subject area, is predicated on the sovereign rights of states over resources.<sup>82</sup> It is to note that it is unlikely that the Smokebush scenario would be repeated under the present EPBCA Regulations 2005, if the provisions of the Regulations are strictly applied. This is because the regulations stipulate stringent measures before the Minister could approve a permit. Although not expressly manifest from the Regulations, the only problematic scenario would be where a community decides not to allow access, and the Minister decides to overrule them on the basis that there is no reason for the community's decision.

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<sup>81</sup> This is implied from article 15(5) of the CBD.

<sup>82</sup> A further discussion on states' sovereignty and access to biodiversity resources will be continued later in this chapter.

A decentralized system of permitting access to resources would obviate the type of situation that faced the parties in the Smokebush scenario. For instance, under the present Philippines' access regime, the Amrad agreement would have been concluded between Amrad and the relevant indigenous communities in Western Australia. In other instances, the agreement might have been between the company and the state authorities, depending on the situation of the resources to be prospected. In decentralizing the access process, allegations that resource prospectors desecrate or disrespect some indigenous cultures, traditions and sacred objects or sites will be virtually non-existent, since the communities will be in control of the access process where appropriate. Additionally, allegations of biopiracy due to lack of benefit-sharing or non-acknowledgment of the source-communities, will also be addressed for the same reason.

#### **4.4. Decentralized Access System and Anti-Commons Problem**

Notwithstanding the above positive assessment of the decentralized system of access, the system has been described as having the potential for creating 'anticommons' problem. While the 'commons' problem occurs when resources are unregulated with property rights and consequently depleted due to overuse,<sup>83</sup> the anticommons problem is the opposite,<sup>84</sup> and occurs when too many individuals or entities have rights of exclusion to a given resource.<sup>85</sup> This

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<sup>83</sup> The 'tragedy of the commons' was popularized by Hardin, in Garrett Hardin, 'The Tragedy of the Commons' (1968) *Science* 1234.

<sup>84</sup> Ibid. The situation arises due to overuse of resources as a result of too many owners having the right to use and none having the right to exclude others from such usage of the resources. See also James Buchanan and Yong J. Yoon, 'Symmetric Tragedies: Commons and Anticommons' (2000) 43 *Journal of Law and Economics* 1; Barton H. Thompson Jr., 'Tragically Difficult: The Obstacles to Governing the Commons' (2000) 30 *Environmental Law* 241, 242.

<sup>85</sup> See Michael A. Heller, 'The Tragedy of the Anticommons: Property in the Transition from Marx to Markets' (1998) 111 *Harvard Law Review* 621. See also Sabrina Safrin, 'Hyperownership in a



problem occurs when these individuals or entities employ their rights of exclusion to prevent others from using a given resource(s). In so doing, the resource(s) in question is wasted by under-consumption as against an otherwise socially optimal use that would have ensued in the absence of such exclusions.<sup>86</sup>

Using the Philippines regime on bioprospecting as part of a case study, Safrin indicates that because potential prospectors are required to obtain permission from respective governments, indigenous communities and private owners, there is the tendency to obfuscate the processes of obtaining consent in these areas and create anticommons problem.<sup>87</sup> In this respect, the resources that these states or communities seek to protect from exploitation are then wasted for lack of optimal use. This issue requires some clarifications.

#### 4.4.1. Clarifying the Anti-Commons Issue

Some scholarly views on this point maintain that the move from common heritage regime to regulated regimes has resulted in too much enclosure and over-regulation of genetic resources by several states, especially developing states.<sup>88</sup> This is attributed to the fact that developing states are depicted as regarding biodiversity and genetic resources as the next 'oil windfall' to be protected with what has been described as 'access restricting regimes.'<sup>89</sup>

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Time of Biotechnological Promise: The International Conflict to Control the Building Blocks of Life' (2004) 96 *American Journal of International Law* 641.

<sup>86</sup> See Michael A. Heller, 'The UNE Anticommons: Why the 1996 Telecom Reforms Blocked Innovation and Investment' (2005) 22 *Yale Journal on Regulation* 275, 278

<sup>87</sup> See Safrin above n 85, 654.

<sup>88</sup> Ibid. The fear has also been expressed at the WIPO Intergovernmental Committee Meetings dealing with access to genetic resources and related knowledge. See the Report on the Third Session of the WIPO Intergovernmental Committee on Genetic Resources, Traditional Knowledge and Folklore, (ICGR TKF) June 13-28 2002 (Geneva) at <<http://www.tradeobservatory.org/library.cfm?refID=25572>> at 30 October 2005.

<sup>89</sup> See Safrin above n 85, 665.

The first issue to be clarified relates to the regulations in some domestic regimes requiring 'tiers of authorization' before there can be any transfer of biodiversity resources and associated knowledge to third parties. It is doubtful whether such rules could be said to complicate the procedures for access or contribute to create anticommons problem. This is because such practices represent the acceptable standards within the international community with respect to authorizing access to biodiversity resources and associated knowledge. For instance, paragraph 34 of the *Bonn Guidelines* specifies that specific uses permitted under any access process should be indicated when consent is granted, and that additional uses of the resources or knowledge or their transfer to third parties should require further consent from the resource providers. It is therefore arguable, that even if it is conceded that a 'tier system' of access will require more efforts to navigate, such situations are not attributable to the 'access restricting regimes' of states. On the contrary, such practices are compatible with the CBD, as exemplified by the *Bonn Guidelines*. Another point is that such thorough processes should also be appraised for some of their advantages, one of which is the limitation placed on the possible misuse of biodiversity materials collected by prospectors for other unauthorized purposes.

Further on the issue of multiple tiers of consent, paragraph 18(a) of the *Bonn Guidelines* stipulates that the relevant stakeholders in every case should be consulted and their views taken into consideration when determining access to resources, or when implementing benefit-sharing arrangements. In specific reference to indigenous and local communities, section 31 of the Guidelines requires that in granting consent to bioprospecting activities, states should respect:

...established legal rights of indigenous and local communities associated with the genetic resources being accessed, or where traditional knowledge that is associated with these genetic resources is being accessed, the prior

consent of the indigenous and local communities and the approval and involvement of the traditional knowledge, innovations and practices should be obtained in accordance with their traditional practices, national access policies and subject to domestic laws.

Another point to be made is that any criticism(s) of the 'tiers system' of permitting access to resources and related knowledge overlooks the preponderance of 'group or collective nature of resource holdings' in most indigenous and local communities. In this respect, therefore, any systems or access procedures of these communities must, of necessity, reflect and incorporate their collective interests. In this way, each indigenous and local community within a state could express the distinctiveness in its customary laws, cultures and traditions in allowing access to its resources.<sup>90</sup> This will further ensure that local communities are not being lumped together and treated as universally homogenous, in terms of the content and practice of their cultures, traditions and other customary innovations and practices.<sup>91</sup> As was noted by the World Commission on Dams, 'indigenous...peoples are not homogenous entities. ...The manner of expressing consent will be guided by customary laws and practices of indigenous...peoples and by national laws...'<sup>92</sup>

#### **4.4.2. Reconciling the Domestic and International Positions**

One issue that arises from the above discussions, and rightly so, is whether this decentralized system of access complies with the provisions of the CBD and other relevant instruments. It has been variously stated in this work that articles 3 and 15 of the CBD, and article 10 of the ITPGR, confirm states' sovereign rights

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<sup>90</sup> See John Borrows and Leonard I. Rotman, 'The Sui Generis Nature of Aboriginal Rights: Does it Make a Difference?' (1997) 36 *Alberta Law Review* 9, 36-37.

<sup>91</sup> See generally, Rosemary J. Coombe, 'The Recognition of Indigenous Peoples and Community Traditional Knowledge in International Law' (2001) 14 *St. Thomas Law Review* 275.

<sup>92</sup> See Colchester and Mackay above n 19, 209.

over their biodiversity and genetic resources.<sup>93</sup> However, the provisions of these Treaties are to be implemented by the domestic laws of each state. Therefore, could there be a conflict between the international centralized position on access and the decentralized domestic positions adopted by some states?

The international community recognizes and sustains the notion of the supremacy of states as the dominant subject of international law.<sup>94</sup> It is also trite that states have full authority and control over persons and resources within their territories.<sup>95</sup> This is one of the cardinal attributes of the principle of state sovereignty, and in relation to biodiversity and genetic resources, has been confirmed by the CBD and the ITPGR, among others.

With respect to accessing biodiversity and resources, the combined effect of article 15(1) and (5) of the CBD is that it is primarily the prerogative of the states to grant such access. Section 24 of the *Bonn Guidelines* replicates this provision in full. Furthermore, article 10(1) of the ITPGR also vests the authority to grant access in state authorities, but does not make provisions for a possible delegation of such authority to other entities. It appears that under the CBD, the fact that states could delegate authority for granting access to resources is only relevant with respect bioprospecting activities, and does not relate to issues like exercising sovereign rights over resources. This could be seen from the fact that articles 3 and 15(1) of the CBD that deal with the specific issue of states'

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<sup>93</sup> See the discussions in chapter three of this work.

<sup>94</sup> See Erik Bluemel, 'Substance Without Process: Analyzing TRIPs Participatory Guarantees in the Light of Protected Indigenous Rights' (2004) 89 *Journal of Patent and Trademark Office Society* 671, 703. For a general theoretical assessment of the concept of sovereignty, see John H. Jackson, 'Sovereignty-Modern: A New Approach to an Outdated Concept' (2003) 97 *American Journal of International Law* 782. Also see generally Thomas J. Biersteker and Cynthia Weber, (eds), *State Sovereignty as Social Construct* (1996) 1-55.

<sup>95</sup> See Terrence Messonnier, 'Neo-Federalism, Popular Sovereignty, and the Criminal Law' (1996) 29 *Akron Law Review* 549, 602-603; Ahmed White, 'Rule of Law and the Limits of Sovereignty: The Private Person in Jurisprudential Perspective' (2001) 38 *American Criminal Law Review* 111, 120-121.

sovereign rights over resources do not include any qualifications to such rights or permit any delegation of such rights. Consequently, in the context of the CBD and the ITPGR, states' sovereign rights over their resources appear non-delegable. In the present context, the term 'delegation' has been used to denote a situation where the states' authorities permit another entity to take charge of the consent process in a particular area for a definite period or for certain transactions.

From the discussions so far in this chapter, it appears that the root of the tensions in the access process between local communities and states has more to do with the propriety of allowing other entities, apart from states, to grant PIC and control access to resources supposedly belonging to states. This is especially the case when states still maintain sovereign rights over resources, which fact, local communities believe, conflicts with their rights to use these resources for meaningful existence. The issue is therefore one of reconciling the sovereign rights of states and the traditional resource use rights of local communities.

#### **4.4.3. States' Sovereignty and Indigenous Resources Rights<sup>96</sup>**

Notwithstanding the seemingly clear import of the doctrine of state sovereignty, issues bordering on the exercise of sovereign rights of ownership and control of resources continue to agitate international discourse. In 1962, with the intention of ensuring some levels of certainty in this subject area, the UN General Assembly adopted Resolution 1803 (the *Declaration on Permanent Sovereignty Over*

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<sup>96</sup> For the historical progression of the sovereignty concept, see generally Helen Stacy, 'Relational Sovereignty' (2003) 55 *Stanford Law Review* 2029.

*Natural Resources* 'the Declaration').<sup>97</sup> Bradlow argues that the main aim of the Declaration was to help developing states to gain greater control over their economic resources and development.<sup>98</sup> Over the years, the extent to which this objective has been achieved still remains to be seen.

Substantively, paragraph I of the Declaration affirms the 'right of peoples and nations to permanent sovereignty over their natural wealth and resources,' and that this right 'must be exercised in the interest of their national development and of the well-being of the people...' Furthermore, under paragraph 7, it is stated that any 'violation of the rights of the peoples and nations to sovereignty over their natural wealth and resources is contrary to the spirit and principles of the Charter of the United Nations...' With this Declaration in place, it is not clear why the *International Undertaking on Plant Genetic Resources* 1983, adopted the policy that plant genetic resources were the common heritage of mankind.<sup>99</sup> It is equally not clear why states chose to adhere to the Undertaking even when its provisions were non-binding on them. Furthermore, it is uncertain why the common heritage principle held sway, as it did, when states had sovereign rights over their resources under customary international law. However, the CBD and the ITPGR have firmly re-affirmed the sovereignty of states over their biodiversity and genetic resources.<sup>100</sup>

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<sup>97</sup> See the Declaration on Permanent Sovereignty over Natural Resources, G.A. res. 1803 (XVII), 17 U.N. GAOR Supp. (No.17) at 15, U.N. Doc. A/5217 (1962) at <<http://www1.umn.edu/humanrts/instree/c2psnr.htm>> at 11 November 2005. There is also the *Charter on the Economic Rights and Duties of States* 1974 that makes reference to the rights of states over natural resources. For the text of the Charter see <<http://www.vilp.de/Enpdf/e162.pdf>> at 11 November 2005.

<sup>98</sup> See Daniel D. Bradlow, 'Development Decision-Making and the Content of International Development Law' (2004) 27 *Boston College International and Comparative Law Review* 195, 197.

<sup>99</sup> See the FAO's *International Undertaking on Plant Genetic Resources for Food and Agriculture* 1983. For the text of the Undertaking, see <<http://www.ukabc.org/ITPGRRe.pdf>> at 12 November 2005.

<sup>100</sup> It is notable that other subsequent U.N. Resolutions like Resolution 41/65 of 1986 (the *Principles Relating to Remote Sensing of the Earth from Space*), still vests sovereignty over the subject on states

From the totality of the discussions in this chapter, it appears that the present state of international law has merged the resource rights of states with state sovereignty, and this has facilitated the absorption of local communities into the centralized administrative processes of most states.<sup>101</sup> One of the major consequences of this development has been the use of several international instruments by states to expand and perpetuate national hegemony over local resource rights.<sup>102</sup> Consequently, the final outcome has the capacity to exacerbate the conflict between states and local communities on the limits of states' resource rights and the sanctity of the peoples' traditional rights to resource use. Implicit in this 'conflict' also is the right to approve PIC for access activities.

From the perspective of local communities, an efficient control of access to their resources is essential for the proper management and nurturing of biodiversity and other resources in a holistic way.<sup>103</sup> In turn, this holism ensures the sustenance of the various local communities, their environment, and diverse cultures and traditions, all within the context of an integrated system of traditional resource management.<sup>104</sup> This practice will in turn help to facilitate

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and its peoples. See Resolution 41/65 (1986) December 3, 1986, GA Res. 41/65 (XLII), U.N. GAOR, 29th Session., 95th Plen. Mtg., U.N. Doc. A/Res/41/65 (1987). For the text of the Principles, see <<http://www.oosa.unvienna.org/SpaceLaw/rs.html>> at 12 November 2005. See also Robert A. Ramey, 'Armed Conflict on the Final Frontier: The Law of War in Space' (2000) 48 *Armed Forces Law Review* 1, 110.

<sup>101</sup> See Benjamin J. Richardson, 'Environmental Law in Post-Colonial Societies: Straddling the Local-Global Institutional Spectrum' (2000) 11 *Colorado Journal of International Environmental Law and Policy* 1, 31.

<sup>102</sup> Ibid 64-65.

<sup>103</sup> See Yianna Lambrou, 'Control and Access to Indigenous Knowledge and Biological Resources' being paper submitted to the Biodiversity Convention Office, Environment Canada, 31 October 1997 at <<http://www.nativemaps.org/abstracts/Control97.pdf>> at 12 November 2005.

<sup>104</sup> Ibid.

the retention of traditional lifestyles and community-based rights in the areas of resource use and management.<sup>105</sup>

However, since traditional resource management also incorporates elements of control and access to resources, the extent to which local communities could engage in this practice is circumscribed by states' sovereign rights over resources.<sup>106</sup> The reliance on the traditional doctrine of state sovereignty in regulatory instruments on biodiversity has left state-centric and highly technical regimes that are struggling to accommodate the diverse interests of non-state entities.<sup>107</sup> This situation is especially crucial with respect to local communities that rely on biodiversity resources as the basis for their continued survival.

Notwithstanding the above observations, in recent years, scholarly commentary suggests that states' sovereign rights are not absolute,<sup>108</sup> and have never been.<sup>109</sup> As a consequence, sovereign rights could not be used to prevent the realization of the resource rights of local communities, as guaranteed under international law.<sup>110</sup> This view is based on the fact that under international law, states' sovereign rights over natural resources also import several concomitant duties.<sup>111</sup> Some of these duties include respecting the rights and interests of indigenous peoples and local communities and desisting from activities that would

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<sup>105</sup> See Shalini Bhutani and Ashish Kothari, 'Re-assessing the 1992 Biodiversity Convention: The Biodiversity Rights of Developing Nations-A Perspective from India' (2002) 32 *Golden Gate University Law Review* 687, 602.

<sup>106</sup> See generally, Ivan Simonovic, 'Relative Sovereignty of the Twenty First Century' (2002) 25 *Hastings International and Comparative Law Review* 371.

<sup>107</sup> See Richardson above n 101, 31.

<sup>108</sup> See Forest Peoples Programmes: 'Indigenous Peoples' Rights, Sovereignty and the Convention on Biological Diversity' at

<[http://www.forestpeoples.org/documents/conservation/cbd\\_ips\\_sovereignty\\_feb04\\_eng.shtm](http://www.forestpeoples.org/documents/conservation/cbd_ips_sovereignty_feb04_eng.shtm)> at 14 November 2005. See also Steven Lee, 'A Puzzle of Sovereignty' (1997) 27 *California Western International Law Journal* 241, 242-244.

<sup>109</sup> See Jianming Chen, 'National Sovereignty and Human Rights in a Positive Law Context' (2000) 26 *Brooklyn Journal of International Law* 417, 428.

<sup>110</sup> See Forest Peoples Programmes above n 108.

<sup>111</sup> Ibid. Citing N. Schrijver, *Sovereignty Over Natural Resources: Balancing Rights and Duties* (1997).



compromise the rights of future generations.<sup>112</sup> In this respect, it is noteworthy that article 1 of the UNESCO's *Declaration on the Responsibilities of the Present Generations Towards Future Generations* 1997, declares that 'the present generations have the responsibility of ensuring that the needs and interests of present and future generations are fully safeguarded.'<sup>113</sup> This implies that actions and inactions of respective states in the exercise of their sovereign rights are limited by other principles of international law that protect the subsistence and regeneration of mankind, in this instance, local communities.

In the context of the CBD and access to biodiversity resources, the limitations placed on states' sovereign rights are also manifest. For example, article 3 of the CBD provides, *inter alia*, that 'states have, in accordance with the Charter of the United Nations and the principles of international law,<sup>114</sup> the sovereign right to exploit their own resources...' As a consequence, all principles of international law, including those not directly connected to biodiversity, for instance international human rights law principles,<sup>115</sup> could be used to protect the interests of local communities. The U.N. Human Rights Committee shares this view. In interpreting article 1 (the right of peoples' to dispose of their natural wealth) and article 27 (right of ethnic nationalities to enjoy their culture and language) of the *International Covenant on Civil and Political Rights* 1966,<sup>116</sup> both the UN Human Rights Committee (UNHRC) and the Inter-American Commission on Human Rights (IACHR) held that the rights of indigenous

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<sup>112</sup> Ibid.

<sup>113</sup> Adopted 12 November 1997 at the 29<sup>th</sup> Session of the General Conference of UNESCO 1997. For the text of the Declaration see <<http://www.unesco.org/cpp/uk/declarations/generations.pdf>> at 14 November 2005.

<sup>114</sup> Emphasis added.

<sup>115</sup> This will incorporate the *Universal Declaration on Human Rights* 1948; the *International Covenant on Civil and Political Rights* 1966 and the *International Covenant on Economic and Social Rights* 1966, and principles of customary international law and treaty law.

<sup>116</sup> For the text of the Covenant, see <<http://www1.umn.edu/humanrts/instree/b3ccpr.htm>> at 14 August 2006.

communities to dispose of their natural wealth and be secure in their means of subsistence must be safeguarded by the states concerned.<sup>117</sup>

In conceptual terms, the manner in which the above view detracts from the doctrine of states' sovereign rights is unclear. What is clear, however, is that it seems that the absolutism and state-centric tendencies that have characterized the exercise of states' sovereign powers for ages is no longer acceptable internationally, especially in relation to local communities.<sup>118</sup> In this respect, the international community is inclined to favour a situation whereby the classic notions of sovereignty and sovereign rights are circumscribed, especially, by notion of individual and collective human rights.<sup>119</sup> However, the extent to which local communities can use this human rights argument in relation to the control of access to resources is presently unclear.

In the final analysis, it is arguable, that, if the exercise of states' sovereign rights over resources would result in any infringement on the resource-rights of indigenous and local communities,<sup>120</sup> such actions would not be in compliance with article 3 of the CBD, which incorporates the general principles of international law. A deduction from the above is that, whenever local

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<sup>117</sup> See Forest Peoples above n 108, noting that the U.N. Committee on the Elimination of Racial Discrimination in its General Recommendation 1997 XX111 interpreted states' obligation to respect and protect the right 'to own property alone and as well as in association with others,' as including obligation to 'recognize and protect the rights of indigenous peoples to own, develop, control and use their communal lands, territories and resources...'

<sup>118</sup> See generally, Michael W. Reisman, 'Sovereignty and Human Rights in Contemporary International Law' (1990) 84 *American Journal of International Law* 866; Beth A. Simmons, 'Is Sovereignty Still Relevant?' (2000) 94 *American Journal of International Law* 226.

<sup>119</sup> See generally Paolo G. Carozza, 'Subsidiarity as a Structural Principle of International Human Rights Law' (2003) 93 *American Journal of International Law* 38; Mary Robinson, 'Shaping Globalization: The Role of Human Rights' (2003) 13 *American University International Law Review* 1.

<sup>120</sup> It has been argued in some quarters that the resource-rights of states are ultimately derived from the resource-rights of the peoples constituting the states. In essence, that the sovereign rights of states are derived from the sovereignty of the peoples. See Bhutani and Kothari above n 105, 602.

communities accuse any state(s) of biopiracy, or being complicit thereto, then one conclusion to be drawn is that such a state(s) has been in breach of the principles of international law and has not abided by the spirit and intent of the CBD.

## 4.5. Conclusion

Issues surrounding the concept of PIC and access to biodiversity and related knowledge are interconnected and complicated in several respects. For several decades this has led to allegations about the illicit exploitation of the resources and knowledge systems of local communities. For these communities, there has been a 'war of attribution' between them and the states with respect to the control of biodiversity resources and the grant of the requisite consent for access. In time, all the above facts have given rise to notion of 'biopiracy', which has become a rallying point for local communities, especially, in their attempt to assume control over their resources and knowledge systems. This will be subject of the next chapter.

One issue that has featured regularly in this chapter is the tension between the practice where states approve consent for bioprospecting activities, even for resources on indigenous lands, and the rights of indigenous peoples to approve such access. It has been variously noted above that the CBD, especially its article 15(5), centralized the authority to permit access to biodiversity and genetic resources on state parties, except where a state decides otherwise. In this context, Professor Coombe submits that article 15(5) of the CBD permits, but does not require, states to insist upon PIC for indigenous and local communities when their knowledge systems or biodiversity resources are to be accessed by

others.<sup>121</sup> However, this submission is doubtful when article 15(5) is juxtaposed with article 3 of the CBD. In cases where a particular state(s), for any reason(s), decides not to require consent from potential prospectors, or where the central authority of the state gives such consent without protecting the interests of local communities, it is clear that allegations of biopiracy against such a state will persist within these communities. Therefore, the issue of PIC is at the root of this situation, and would have to be clearly addressed as a starting point to satisfying the demands of local communities on access issues.

With the above discussion in mind, it is submitted that a decentralized system of granting access to resources would greatly improved the situation, even if the process is slower and more complex. This is because such a system will incorporate the owners and custodians of the relevant resources and knowledge systems into the access and consent processes. The discussions in this chapter have established that, apart from ownership rights, the involvement or otherwise of indigenous and local communities in the access process seems to be the crux of their demands in the area of access. Other incidental issues like benefit-sharing and technology transfer are tied to the fundamental issue that requisite consent be sought and received from the concerned local communities by potential prospectors.

From all of the above, it is clear that securing the rights to play key roles in allowing or refusing access to their resources and knowledge systems is of paramount priority to local communities. In this way, these communities are able to determine the terms and manner of alienating their resources and knowledge systems. According to Darrell Posey et al, 'the first concern of indigenous peoples is their right not to sell, commoditize, or have expropriated from them

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<sup>121</sup> See Rosemary J. Coombe, 'Intellectual Property, Human Rights and Sovereignty: New Dilemmas in International Law Posed by the Recognition of Indigenous Knowledge and the Conservation of Biodiversity' (1998) 6 *Indiana Journal of Global Legal Studies* 59, 100.

certain...knowledge and certain sacred places, plants, animals, and objects'.<sup>122</sup> It is obvious that these concerns will not be addressed if the communities concerned do not have any role(s) to play in the access process. Therefore, while the issue of compensation for use of indigenous knowledge systems is a genuine concern, most local communities attach even greater importance to the control over how such knowledge systems are accessed and subsequently utilized.<sup>123</sup>

Hence, viewed from the perspectives of local communities, it appears that the effective resolution of the tension existing between them and states in the access process will require states to adopt decentralized systems of access to biodiversity resources and associated knowledge. This would involve the devolution of some measures of decision-making on PIC to resource-owning communities. One major fall-out from this decentralized regime will be a re-alignment of the relationship between the sovereign rights of states over resources and the internal access mechanisms adopted by these states. As already noted, an important aspect of this regime is the decentralization of the consent process allowing the relevant groups and communities to determine what could be alienated and in what manner, or otherwise. This will require a greater understanding of the process of acquiring PIC from local communities to access their biodiversity resources and related knowledge.<sup>124</sup> Once this has been achieved, then a more symbiotic relationship between states and local communities in the access process will be the final outcome.<sup>125</sup> This will, in turn,

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<sup>122</sup> See generally, Darrell A. Posey et al, *A Handbook for Indigenous, Traditional, and Local Communities on Traditional Resources Rights: Protection, Compensation and Conservation* (1994).

<sup>123</sup> See Naomi Roht-Arriaza, 'Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities' (1996) 19 *Michigan Journal of International Law* 919, 953.

<sup>124</sup> See generally, Rosemary J. Coombe, 'The Recognition of Indigenous Peoples and Community Traditional Knowledge in International Law' (2001) 14 *St. Thomas Law Review* 275, 284.

<sup>125</sup> The Philippines' *Indigenous Peoples Rights Act 1997* is one of the instruments that have made progressive provisions in this respect. For instance, section 2(b) of the Act recognizes, among other things, the rights of indigenous peoples to their ancestral domains to help ensure their economic, social, and cultural well-being.

reduce, if not eliminate, allegations of inappropriate access to indigenous knowledge systems and resources, and perhaps, end the biopiracy debate.

## **Chapter Five**

### **'Biopiracy' and Access to Indigenous Knowledge Systems**

## Chapter Five

### 'Biopiracy' and Access to Indigenous Knowledge Systems

#### 5. Introduction

...As a result of this combination of rich natural resources and limited government control, biopiracy, the illegal expropriation of biological diversity and traditional knowledge, has become an extremely profitable business in Amazonia. It is estimated that 20,000 individual plant samples are smuggled out of the country each year. Given the fact that the pharmaceutical industry made over \$300 billion in sales worldwide in 1999;...it is not surprising that in Amazonia only narcotics and gun running produce more illegally generated profit than the smuggling of biological samples.<sup>1</sup>

The last two chapters have highlighted the difficulties that confront indigenous and local communities in the areas of ownership, control, and determining access to biodiversity and genetic resources. However, as was seen in the last chapter, in relation to the issue of Prior Informed Consent (PIC) for bioprospecting, most of the legislative provisions at the domestic levels have not given substantive rights to local communities in the access process. This explains why allegations of biopiracy made by local communities, which is the unauthorized or uncompensated access to biodiversity and related resources, persist. This is a consequence of indigenous peoples' conviction that their inability to play any substantive role(s) in the access process over what they consider 'subsistence resources' is unjustified.

Notwithstanding the unsatisfactory position that local communities find themselves in with respect to access to biodiversity, it is a truism that these

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<sup>1</sup> See Robin L. Scott, 'Bio-Conservation or Bio-Exploitation: An Analysis of the Active Ingredients Discovery Agreement Between the Brazilian Institution Bioamazonia and Swiss Pharmaceutical Company Novartis' (2003) 35 *George Washington International Law Review* 977, 978.



communities<sup>2</sup> are in close interactions with about ninety-five percent of the world's biological and cultural diversity.<sup>3</sup> It is also well established that these communities inhabit areas that possess the greatest biological and cultural diversity within several states.<sup>4</sup> Over several centuries, local communities have engaged themselves in the nurturing, regeneration, variation, management and conservation of diverse species of flora and fauna within their surrounding environment.<sup>5</sup>

The historically enduring and symbiotic relationships that local communities have developed with their surroundings have enabled the accumulation of specialized knowledge on the existence and nature of diverse cultural knowledge and resources, while internalizing their diversity within indigenous territories.<sup>6</sup> These knowledge systems and resources are used for all of nutritional, medicinal, social, ceremonial, conservation and ritual purposes among several other uses.<sup>7</sup> In all socio-economic and cultural interactions involving the utilization of resources and knowledge, indigenous communities principally base their usages on the inalienability and collective rights to these resources, especially their lands and appurtenances.<sup>8</sup> This bias for collectivity of resource-use emanates from the holistic view that these communities project for all aspects of their social, material and spiritual well-being as discussed in chapter one.<sup>9</sup>

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<sup>2</sup> In this chapter the terms 'indigenous peoples' and 'local communities' will be used interchangeably and also together as a compound term.

<sup>3</sup> See generally Jeremy Firestone, Jonathan Lilley and Isabel Torres de Noronha, 'Cultural Diversity, Human Rights, and the Emergence of Indigenous Peoples in International and Comparative Environmental Law' (2005) 20 *American University International Law Review* 219, 245-249.

<sup>4</sup> See Marcial Arias (ed), 'Participation and Prior informed Consent of Indigenous Peoples in the Implementation of the Convention on Biological Diversity' Report on the 111 International Indigenous Forum on Biodiversity (Bratislava, Slovakia 4-6 May 1998) and the Fourth Conference of the Parties of the Convention on Biological Diversity (4-15 May 1998) at <[http://trade-info.cec.eu.int/doclib/docs/2005/april/tradoc\\_122181.pdf](http://trade-info.cec.eu.int/doclib/docs/2005/april/tradoc_122181.pdf)> at 15 September 2005.

<sup>5</sup> Ibid.

<sup>6</sup> See Sophie Theriault et al., 'The Legal Protection of Subsistence: A Prerequisite of Food Security for the Inuit of Alaska' (2005) 22 *Alaska Law Review* 35, 42-48.

<sup>7</sup> Ibid.

<sup>8</sup> See Arias above n 4.

<sup>9</sup> Ibid.

As discussed in chapter three, there has been significant increase in the level of attention being paid to products of biodiversity and genetic resources,<sup>10</sup> and this development has elicited indigenous concerns over their ownership of these resources.<sup>11</sup> However, it appears that any attempt to assert indigenous ownership rights has been met with legislative and policy blockages at the domestic and international levels.

As a fallout from the above, the perceived injustice over the continued exclusion of local communities from the benefits accruing from the commercialization of the products of biodiversity resources, has resulted in allegations of biopiracy by these groups (and sometimes by some developing countries.) However, it has been suggested that allegations of biopiracy appear to be the South's strategy in the continuing politics and struggle over the ownership rights to biodiversity and genetic resources.<sup>12</sup> Whether this suggestion is totally correct remains to be seen. What seems clear is that the issue of resource ownership rights appear to be at the heart of the biopiracy debate.<sup>13</sup>

This chapter will examine several issues surrounding the persistent allegations of 'biopiracy' being made by indigenous and local communities in several countries, especially developing countries.<sup>14</sup> These allegations have become constant features when discussing issues relating to access and commercialization of

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<sup>10</sup> See for instance, Christopher J. Hunter, 'Sustainable Bioprospecting: Using Private Contracts and International Legal Principles and Policies to Conserve Raw Medicinal Materials' (1997) 25 *Boston College Environmental Affairs Law Review* 129, 146.

<sup>11</sup> See James O. Odek, 'Bio-piracy: Creating Proprietary Rights in Plant Genetic Resources' (1994) 2 *Journal of Intellectual Property Law* 141, 144

<sup>12</sup> It has been submitted that debates over the ownership rights to biodiversity resources, especially medicinal resources, have been on-going for several decades. See, for instance, Gerard Bodeker, 'Traditional Medical Knowledge, Intellectual Property Rights and Benefit-Sharing' (2003) 11 *Cardozo Journal of International and Comparative Law* 785, 786.

<sup>13</sup> See generally the ideas espoused in Jose Paolo Kastrup, 'The Internalization of Indigenous Rights from the Environmental and Human Rights Perspective' (1997) 32 *Texas International Law Journal* 97.

<sup>14</sup> Indigenous communities in several developed countries, including communities in Australia, Canada and the United States have also made allegations of biopiracy at different times. See for instance, Tom Spears, 'Researchers Blast "Biopiracy" of Natives' Medicinal Knowledge' *The Ottawa Citizen*, (Ottawa, Ontario, Canada) Thursday February 19 2004, A3.

biodiversity and indigenous knowledge.<sup>15</sup> Considering that the *Convention on Biological Diversity*<sup>16</sup> (CBD) and the *International Treaty on Plant Genetic Resources*<sup>17</sup> (ITPGR) (as discussed in previous chapters) vest sovereign rights over biodiversity and genetic resources in states,<sup>18</sup> it is surprising that issues relating to access remain contentious. This is because sovereign resource rights imply that these biodiversity resources are now owned by states, and the era of treating genetic resources as 'common heritage' has been effectively foreclosed.

Despite the above assertions, allegations of biopiracy persist even in the face of the rights conferred on states under the CBD, ITPGR and other international instruments. For instance, a 1998 Report on biopiracy in Sri Lanka concluded that several developed countries are taking advantage of developing countries that do not have the resources to scientifically synthesize samples of products and have to rely on foreign corporations, while earning very little, if at all, in return.<sup>19</sup> A clear undertone in this Report suggests that developing countries were being arm-twisted by technologically advanced countries with respect to the benefits accruing from the products of biodiversity.

These are important issues, since the resolution of the biopiracy quagmire might hold the key to defining the nexus between the effective integration or otherwise of indigenous knowledge systems into the global knowledge pool.

In attempting a detailed discussion of the issues raised above, this chapter has been divided into two parts. The first part will discuss the conceptual underpinnings of the term 'biopiracy', what the term represents, to whom, and how the term has metamorphosed from being the euphemism for 'straight

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<sup>15</sup> See for example Alan Story 'Biopiracy and the Dangers of Patent Over-Protection' (1999) 149 *New Law Journal* 158.

<sup>16</sup> See articles 3 and 15 of the CBD.

<sup>17</sup> See article 10 of the ITPGR.

<sup>18</sup> In this chapter the terms 'biodiversity' and 'biodiversity and genetic resources' will be used interchangeably.

<sup>19</sup> See 'Sri-Lanka: Biopirates Patent Traditional Wisdom,' *International Press Service*, October 8, 1998, at <<http://www.grain.org/bio-ipr/?id=284>> at 17 September 2005.

stealing'<sup>20</sup> to become a complicated expression that seems to be generating more controversy than substance.<sup>21</sup> As a follow-up to these discussions, the second part will consider a few specific situations, using the legislative instruments in some countries as examples. Also, the international dimension of the biopiracy debate will be considered, especially in the context of the provisions of the *Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS)* 1993<sup>22</sup>. In all these discussions, references will be made to the roles of states in what has become the biopiracy debacle. This is because, considering that all dominant international instruments in the area of biodiversity and genetic resources have invested states with the authority to make specific regulations on access, it appears that any explanation(s) for the persistent allegations of biopiracy must be traced to the regulatory practices adopted by states.

## 5.1. Conceptualizing 'Biopiracy'

In conceptual terms, biopiracy has become complex and nebulous,<sup>23</sup> although it makes substantive sense to indigenous and local communities.<sup>24</sup> In the realm of access to indigenous knowledge systems, biodiversity and genetic resources, the term 'biopiracy' has assumed a hydra-headed connotation. The term evokes both support and disdain from academics and human rights activists, depending on

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<sup>20</sup> This term is taken from Angela Riley, 'Straight Stealing: Towards an Indigenous System of Cultural Property Protection' (2005) 80 *Washington Law Review* 69.

<sup>21</sup> See for example the general theme in Sumathi Subbia, 'Reaping What they Sow: The Basmati Rice Controversy and Strategies for Protecting Traditional Knowledge' (2004) 27 *Boston College International and Comparative Law Review* 529. Compare with the views expressed in Paul J. Heald, 'The Rhetoric of Biopiracy' (2003) 11 *Cardozo Journal of International and Comparative Law* 519.

<sup>22</sup> The *Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)* is Annex 1C to the Marrakesh Agreement Establishing the World Trade Organization (WTO), signed in Marrakesh, Morocco, April 15 1994. For the text of the TRIPS Agreement see [http://www.wto.org/english/tratop\\_e/trips\\_e/t\\_agm0\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm) at 18 October 2005.

<sup>23</sup> See Jim Chen, 'Biodiversity and Biotechnology: A Misunderstood Relation' (2005) *Michigan State Law Journal* 51, 52-55.

<sup>24</sup> See for example 'Biopiracy in the Amazon-Introduction' at <http://www.amazonlink.org/biopiracy/index.htm> at 18 September 2005.

their respective ideological leanings and affiliations.<sup>25</sup> While some commentators regard the term as being responsible for the exposure of decades of injustice that has militated against the interests of indigenous and local communities around the world,<sup>26</sup> others see the term as a simple rhetoric aimed at achieving other objectives.<sup>27</sup> A third group perceives allegations of biopiracy as an avenue for the expression of the normative claim by developing countries to ownership rights over their biodiversity and genetic resources.<sup>28</sup> It appears that what represents the correct position on this issue will largely depend on the perspective adopted by the person(s) engaged in the discourse at any particular point in time.

However, as is common with most terms that are associated with indigenous peoples and their knowledge systems, there is no generally acceptable definition of what constitutes biopiracy. According to Dutfield, the term was coined by Pat Mooney of the Non-Governmental Organization (NGO) Rural Advancement Foundation International (RAFI, now the ETC Group).<sup>29</sup> It was meant to be part of the counterattack strategy for developing countries that had been accused by developed countries of condoning or encouraging 'intellectual piracy' of the products and processes developed in the West.<sup>30</sup> The counterattack by developing countries was hinged primarily on allegations of long-term pillaging of the resources and knowledge systems belonging to indigenous and local communities by Western corporations without any compensation being paid to the relevant groups, communities or countries.<sup>31</sup>

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<sup>25</sup> See generally Bodeker above n 12, 785. Also see generally, Gillian N. Rattray, 'The Enola Bean Patent Controversy: Biopiracy, Novelty, and Fish-and-Chips' (2002) *Duke Law and Technology Review* 8.

<sup>26</sup> See for instance Vandana Shiva, *Biopiracy: The Plunder of Nature and Knowledge* (1997) 1-5, 10-11.

<sup>27</sup> See generally Paul J. Heald, 'The Rhetoric of Biopiracy' (2003) 11 *Cardozo Journal of International and Comparative Law* 519.

<sup>28</sup> See Odek above n 11, 145.

<sup>29</sup> See Graham Dutfield, 'TRIPs-Related Aspects of Traditional Knowledge' (2001) 33 *Case Western Reserve Journal of International Law* 233, 235-237.

<sup>30</sup> *Ibid.*

<sup>31</sup> *Ibid.*

Despite the fact that most developing countries have come to characterize any form of uncompensated or unacknowledged appropriation of their biodiversity resources and related knowledge as biopiracy, even the originating term 'piracy' remains tenuous and lacks any precise legal definition.<sup>32</sup> According to Reichman, the term 'piracy' indicates several things, but more especially, it describes any 'unauthorized and uncompensated reproduction or simulation of a creative intellectual product that deprives the originator of the economic or moral benefits accruing from his or her creative undertaking.'<sup>33</sup>

Although the above definition does not specifically describe biopiracy, the essential details could be applied to biopiracy as well. In a more specific respect, Sell has defined the term 'biopiracy' as the 'unauthorized and uncompensated expropriation of genetic resources and traditional [biocultural] knowledge' of indigenous and local communities.<sup>34</sup> Furthermore, she submits that biopiracy projects a 'new form of Western imperialism in which global seed and pharmaceutical corporations plunder the [bioresources] biodiversity and traditional knowledge of the developing world.'<sup>35</sup> In some respects this observation could be said to be an indictment of the CBD and other related instruments. This is because, as discussed in chapter four,<sup>36</sup> these regulatory instruments provide the framework for regulating access to biodiversity and genetic resources and have been in force domestically in several countries for over a decade.

Notwithstanding the fluidity ascribed to the import of biopiracy, for the purposes of this chapter the term is taken to mean the uncompensated, unauthorized or

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<sup>32</sup> See Odek above n 11, 145.

<sup>33</sup> See Jerome Reichman, 'Intellectual Property in International Trade: Opportunities and Risks of a GATT Connection (1989) 22 *Vanderbilt Journal of Transnational Law* 747, 775.

<sup>34</sup> See Susan K. Sell, 'Post-TRIPs Developments: Tensions Between Commercial and Social Agendas in the Context of Intellectual Property' (2002) 14 *Florida Journal of International Law* 147, 202.

<sup>35</sup> Ibid. Also see generally, Vandana Shiva, *Monocultures of the Mind: Perspectives on Biodiversity and Biotechnology* (1993) 1-15.

<sup>36</sup> See the general discussions in chapter four, especially those relating to the effects of articles 3 and 15 of the CBD.

unacknowledged access to, use, or transfer of the biodiversity, genetic resources or knowledge systems of indigenous and local communities. It is also taken that these acts have been committed by non-indigenous person(s) or entities. It should be noted that there is also a wider context where developing states themselves are alleged to be the 'victims' of biopiracy, and in such cases the above definition will apply *mutatis mutandis*.

### 5.1.1. Progressive Concerns About Biopiracy

The global voyages of discovery by Christopher Columbus and other early expeditions across several continents must have been early warnings about impending centuries of biopiracy.<sup>37</sup> It is recorded that 'on April 17, 1492, Queen Isabel and King Ferdinand of Spain granted Christopher Columbus the privileges of 'discovery and conquest,'<sup>38</sup> which allowed Columbus and his crew to take home diverse plants and animal species from several regions of the world during their voyages.<sup>39</sup> These materials were later planted and nurtured in Europe and elsewhere, without any compensation for the original resource-owning communities or regions.<sup>40</sup>

From the available literature on access to biodiversity and genetic resources, it is generally agreed that activities amounting to biopiracy had been in existence for a long time.<sup>41</sup> The historical incidence of colonialism has been described as a complex form of global piracy of the knowledge systems and resources of the colonies, with biopiracy being only one of its components.<sup>42</sup> This view is reflected in the statement of the former Malaysian Prime Minister Mahathir Mohammed at the Rio Conference in Brazil in 1992. Among other things, he posits that:

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<sup>37</sup> See 'Biopiracy and Intellectual Property Rights' at <http://home.clara.net/heureka/gaia/genetix.htm> at 17 August 2006.

<sup>38</sup> See generally Shiva above n 26, 1-15.

<sup>39</sup> Ibid.

<sup>40</sup> Ibid.

<sup>41</sup> See generally Walter Rodney, *How Europe Underdeveloped Africa* (1972) 1-55.

<sup>42</sup> Ibid.

When the rich chopped down their own forests . . . and scoured the world for cheap resources, the poor said nothing. Indeed, they paid for the development of the rich. Now, the rich claim a right to regulate the development of the poor countries. And yet any suggestion that the rich compensate the poor adequately is regarded as outrageous. As colonies, we were exploited. Now, as independent nations, we are to be equally exploited.<sup>43</sup>

Much earlier, in 1984, the World Council on Indigenous Peoples had adopted the *Declaration of Principles*<sup>44</sup> (the Principles) setting out the terms and conditions upon which indigenous and local communities should relate with states and the international community. Among other sundry provisions, paragraph 10 of the Principles provides that 'indigenous peoples have inalienable rights over their traditional lands and resources.' Furthermore, it provides that any case(s) of usurpation of the lands and resources of indigenous communities, or any access to these resources that had been undertaken without their free and informed consent should be remedied without delay.<sup>45</sup> The reference to incidences of access to indigenous resources and knowledge systems without the requisite consent of the concerned communities has over the years metamorphosed into the catch-phrase 'biopiracy'.

In 1988, there was an added impetus to the view that indigenous and local communities were being neglected by the international community with respect to use of their knowledge systems and biodiversity resources. This conviction led the International Society of Ethnobiology to adopt the *Declaration of Belém*<sup>46</sup> (the Declaration) in Brazil in 1988. This was at the 1<sup>st</sup> International

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<sup>43</sup> See the Statement of Mahathir Mohammed in the Report of the United Nations Conference on Environment and Development Rio de Janeiro Brazil, 1992, 230, 231, 233 U.N. Doc. A/CONF.151/26/Rev.1 (vol. V) (1993); quoted in Odek above n 11, 158.

<sup>44</sup> Ratified by the 4<sup>th</sup> General Assembly of the World Council of Indigenous Peoples, Panama, September 23-30 1984. For the text of the Declaration of Principles, see <<http://www.cwis.org/fwdp/Resolutions/WCIP/wcip.txt>> at 20 September 2005.

<sup>45</sup> Item 10 of the *Declaration of Principles* used the term 'free and knowledgeable consent.'

<sup>46</sup> For the text of the Declaration, see <<http://guallart.dac.uga.edu/ISE/declareBelem.html>> at 21 September 2005.



Congress on Ethnobiology. Item 4 of the Declaration requested that 'procedures be developed to compensate indigenous peoples for the utilization of their knowledge and their biological resources.' This request implies that at the time of the Declaration, there were no guidelines or procedures that stipulated the manner through which local communities were to be compensated for the use of their knowledge and resources by other entities. Although the term 'biopiracy' was not used in the Declaration, the emphasis on the need to compensate for the use of indigenous knowledge systems and resources was to obviate the continued access to such resources without compensation.

In a related development, in February 1992, the *Manila Declaration Concerning Ethical Utilization of Asian Biological Resources*<sup>47</sup> (Manila Declaration) was adopted following the 7<sup>th</sup> Asian Symposium on Medicinal Plants and Spices (ASOMPS V11) in the Philippines. Item 6 of the Manila Declaration recognized that existing modalities for accessing biodiversity resources and indigenous knowledge are 'frequently inequitable, favouring technologically advanced organizations and/or developed countries, to the disadvantage of both conservation and development in the country or region of origin.' More importantly, Item 16.5 recommended that 'the traditional knowledge of local participants contributing to development of new natural products must be recognized as significant intellectual property.'

In the context of the present discussions, it is submitted that the use of the term 'intellectual property' within indigenous circles serves more as a generic reference to existing knowledge and practices, than a replication of the elements of Western intellectual property systems.<sup>48</sup> This implies that the type of recognition and protection required by each knowledge system or property

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<sup>47</sup> For the text of the Manila Declaration, see

< <http://www.iupac.org/reports/1996/6812andrews/manila.html> > at 21 September 2005.

<sup>48</sup> See for instance, Riley above n 20, 88-89. However, there are various suggestions for the use of conventional intellectual property rights (IPRs) mechanisms to protect indigenous knowledge. For detailed discussions on this suggestion, see generally, Tom Greaves (ed), *Intellectual Property Rights for Indigenous Peoples: A Sourcebook* (1994).

regime will very much depend on its use value to the relevant community. For example, it is generally taken as given that protecting private property rights is of secondary importance to communal rights when indigenous rights are under consideration.<sup>49</sup> In conventional Western property discourse, the converse position is correct.<sup>50</sup>

The instruments discussed referred to above are mostly normative and largely legally non-binding on states. However, it is submitted that their recognizing the value of the knowledge systems and resource rights of indigenous and local communities contributed enormously to the galvanization of international attention towards protecting indigenous interests. This trend was also augmented by the efforts of several international NGOs in highlighting practices that were deemed to amount to biopiracy and therefore detrimental to the interests of indigenous and local communities.<sup>51</sup>

The notion that entities from developed world have been plundering the resources of developing countries and indigenous communities has long existed.<sup>52</sup> This notion has been strengthened and has gathered momentum in

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<sup>49</sup> See Jonathan P. Vuotto, 'Awas Tingni v. Nicaragua: International Precedent for Indigenous Land Rights?' (2004) 22 *Boston University International Law Journal* 219, 231. See generally, Rachael Grad, 'Indigenous Rights and Intellectual Property Law: A Comparison of the United States and Australia' (2003) 13 *Duke Journal of Comparative and International Law* 203; Lesley K. Friedman, 'Native Hawaiians, Self-Determination and the Inadequacy of the State Land Trusts' (1992) 14 *Hawaii Law Review* 519.

<sup>50</sup> See generally Lynda J. Oswald, 'Property Rights Legislation and the Police Power' (2000) 37 *American Business Law Journal* 527; Jude Fernando, 'NGO's and the Production of Indigenous Knowledge Under the Conditions of Post-Modernity' (2003) 590 *Annals* 54, 67-68; Jacqueline Lipton, 'Balancing Private Rights and Public Policies: Re-conceptualizing Property Rights in Databases' (2003) 18 *Berkeley Technology Law Journal* 773; Terry W. Farzier, 'Protecting Ecological Integrity within the Balancing Function of Property Law' (1998) 28 *Environmental Law* 53; Steven J. Eagle, 'The Development of Property Rights in America and the Property Rights Movement' (2002) 1 *Georgetown Journal of Law and Public Policy* 77.

<sup>51</sup> Chief among this group are the GRAIN International based in Barcelona, Spain and the Rural Advancement Foundation International (RAFI, now the ETC Group) based in Ottawa, Canada. There is also the Third World Network (TWN) based in Penang, Malaysia, among several others.

<sup>52</sup> There are suggestions that the origins of biopiracy must be traced to the activities during the expeditions of the 1500 and 1600s. See generally Vandana Shiva, *Biopiracy: The Plunder of Nature and Knowledge* (1997). See also 'Biopiracy and Intellectual Property Rights' at <<http://www.heureka.clara.net/gaia/genetix.htm>> 28 September 2005.

recent decades. According to Bird, from the early to the late 20<sup>th</sup> century, the incidence of colonialism not only ruined the environments of most colonies, but was also responsible for the plundering of most of their knowledge systems and resources.<sup>53</sup> It is further alleged that this sequence of exploitation also involved systematic practices whereby Western pharmaceutical companies exploited the therapeutic remedies developed by traditional healers in developing countries and local communities.<sup>54</sup> There is also the view that this process of exploitation has contributed to the skewing of balance of trade and payments in favour of the developed countries in succeeding decades.<sup>55</sup> This is because the end products from the raw materials taken from developing countries and local communities were subsequently exported back to these countries as finished products for huge profits.<sup>56</sup>

Commenting on this issue, Walter Rodney observes that an indispensable element of 'modern under-development is that it expresses a particular relationship of exploitation: namely the exploitation of one country by another.'<sup>57</sup> He submits further that this process of exploitation denies the developing countries of the benefit of their natural resources, as these resources are exported to the developed countries as raw materials.<sup>58</sup> However, even if colonialism provided the plank upon which the relations between developed and developing countries and local communities were based,<sup>59</sup> the question is: why are there still allegations of biopiracy long after colonialism has ceased? It presupposes that there are other indices that perpetuate incidences of biopiracy apart from the lingering effects of any colonial hangover. The progression of

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<sup>53</sup> See Chris Bird, 'Medicine from the Rainforest' (1991) 131 *New Scientist* 34, in Lakshmi Sarma, 'Biopiracy: Twentieth Century Imperialism in the Form of International Agreements' (1999) 13 *Temple International and Comparative Law Journal* 107, 110.

<sup>54</sup> See David Fidler, 'Neither Science Nor Shamans: Globalization of Markets and Health in developing Countries' (1999) 7 *Indiana Journal of Global Legal Studies* 191, 212.

<sup>55</sup> *Ibid* 213.

<sup>56</sup> *Ibid*.

<sup>57</sup> See Rodney above n 41, 14.

<sup>58</sup> *Ibid*.

<sup>59</sup> See Chidi Oguamanam, 'Protecting Indigenous Knowledge in International Law: Solidarity Beyond the Nation State' (2004) 8 *Law Culture Text* 191, 193.

concerns for biopiracy did not, however, stop with the end of colonialism. From the early twentieth century, a new concern emerged: that intellectual property rights (IPRs) mechanisms have become the new instruments for modern day colonialism and the continuation of biopiracy activities against developing countries and local communities.<sup>60</sup> In this respect, it has been submitted that, in recent past, in relation to the allocation of rights over biodiversity and genetic resources, formal and scientific systems of innovation and research in some ways 'denigrated and denied the value of indigenous and subsistence farmers' informal systems of knowledge-transmission and innovation.'<sup>61</sup> This implies that such knowledge systems are unsuitable for protection by IPRs, and leaves developing countries and local communities in situations that contribute to sustain the persistent use of allegations of biopiracy as countervailing mechanisms to force a better assessment of their knowledge systems. This situation seems to be gradually changing, especially since indigenous issues became subjects of discussion within the international community.

As will be seen in the next chapter, from the perspectives of local communities, the system of IPRs often produces gloomy outcomes for these communities. It has been argued that these outcomes owe to the fact that IPRs mechanisms usually emphasize the separation of what is conventionally considered 'knowledge' from what is simply deemed 'physical resources' within any society.<sup>62</sup> However, in doing this, IPRs mechanisms often ignore the fact that indigenous knowledge systems do not simply consist of economic rights over physical things.<sup>63</sup> These knowledge systems are more in the nature of complex bundles of rights, duties, and relationships with the plants, animals and the

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<sup>60</sup> See Bird above n 53.

<sup>61</sup> See Naomi Roht-Arriaza, 'Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities' (1996) 17 *Michigan Journal of International Law* 919, 929.

<sup>62</sup> Ibid.

<sup>63</sup> However, see the view expressed in Jean R. Homere, 'Intellectual Property Rights Can Help Stimulate the Economic Development of Least Developed Countries' (2004) 27 *Columbia Journal of Law and the Arts* 277.

general ecosystem of the communities concerned.<sup>64</sup> Therefore, any attempt to compartmentalize these systems for purposes of assigning entitlements will often raise more questions than answers, and help in perpetuating allegations of biopiracy.<sup>65</sup>

### 5.1.2. The Features of 'Biopiracy'

From the above discussions, it is difficult to conclude whether allegations of biopiracy are sustainable or not without considering the various processes of accessing indigenous knowledge systems and resources. This is because, at the root of allegations of biopiracy, are two principal features: first, the 'unauthorized exploitation' of biodiversity resources and allied knowledge by person(s) or entities from outside the local communities. This implicates the acquisition of the indigenous intellectual property rights in these knowledge systems and resources.<sup>66</sup> The second feature is the 'uncompensated or unacknowledged exploitation' of these resources by persons and entities described above.<sup>67</sup> In the course of time, another feature of biopiracy has emerged, and relates to access and exploitation of the 'unexploitable knowledge and resources' of local communities.<sup>68</sup> Although the first and the second issues are intricately linked, they will be discussed separately for purposes of convenience. These three issues will be discussed below in order

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<sup>64</sup> See Roht-Arriaza above n 61, 929. Also see the discussions on the holistic nature of indigenous knowledge systems in chapters one and two of this work.

<sup>65</sup> The use of the term 'allegations' in this chapter does not, on the face value, go to support or rebut the veracity of such claims.

<sup>66</sup> This is one of the most common allegations by indigenous and local communities in this area. See for example, Graeme W. Austin, 'Re-Treating Intellectual Property: The WAI 262 Proceeding and the Heuristics of Intellectual Property Law (2003) 11 *Cardozo Journal of International and Comparative Law* 333, 353.

<sup>67</sup> See generally, Odek above n 11, 141-145.

<sup>68</sup> This is the type of exploitation that some scholars have mentioned as one of the causes of 'cultural harm' to the concerned groups and communities. See generally William M. Bryner, 'Towards a Group Rights Theory for Remedying Harm to the Subsistence Culture of Alaska Natives (1995) 12 *Alaska Law Review* 293; Rebecca Tsosie, 'Reclaiming Native Stories: An Essay on Cultural Appropriation and Cultural Rights' (2002) 34 *Arizona State Law Journal* 299; Margaret Martin, 'What's in a Painting? The Cultural Harm of Unauthorized Reproduction: Milpurrru & Ors v. Indofurn Pty Ltd & Ors' (1995) 17 *Sydney Law Review* 591.

to determine why they are still current despite several international and domestic instruments that are meant to address these concerns of local communities.<sup>69</sup>

### **a. The Unauthorized Exploitation of Indigenous Knowledge and Resources**

Since the early 1990's, one of the recurrent conflicts that have emerged between developed and developing states over resource ownership involves allegations of unauthorized use of the resources and knowledge systems of indigenous and local communities.<sup>70</sup> The incidence of unauthorized use might manifest in several ways: it could relate to an express lack of authorization, or where access was obtained by misinformation or any other form(s) of misrepresentation. There could also be an authorization that was deliberately used by the resource prospector(s) to exceed the limits of access allowed, or an authorization that was given by the community concerned without appreciating the full import of the activities to be undertaken those granted access. The common denominator in all the above instances is that there would have been no agreement between the parties on the extent to which the communities involved were willing to share aspects of their knowledge or resources. It also implies that the parties did not agree on the aspects of knowledge or resources that the communities were prepared to share. This implies that the mutual objectives that the access process is meant to serve would have been defeated in these instances.

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<sup>69</sup> Most of the instruments discussed in chapter four, one way or another, are meant to ensure equity in the processes of accessing the knowledge systems and resources of respective communities.

<sup>70</sup> See 'Patently Problematic' *The Economist*, 14 September 2002, 76, in Thomas J. Krumenacher, 'Protection for Indigenous Peoples and their Traditional Knowledge: Would a Registry System Reduce the Misappropriation of Traditional Knowledge?' (2004) 8 *Marquette Intellectual Property Law Review* 143, 143-144.

In contemporary societies comprising nation-states, incidences of biopiracy involving outright lack of authorization to access resources are not common, but still occur. For example, a 2005 report from Kuala Lumpur, Malaysia, indicates that some prospective 'bioprospectors' visit the country posing as tourists, while surreptitiously collecting plant and animal genetic resources to take home.<sup>71</sup> According to Daniel Baskaran, a Director of the Forest Research Institute of Malaysia, 'once they find the active ingredient, they can synthesize it in the lab for use in the cosmetic or pharmaceutical industry.'<sup>72</sup> There are also cases of reported smuggling of anteaters, tortoises, terrapins, monitor lizard and freshwater turtles and other animals have been reported by the Malaysian Department of Wildlife and National Parks.<sup>73</sup> These are cases of outright lack of authorization to access any of these resources.

Another perspective on biopiracy is demonstrated by the Kraho Indian Peoples Project (KIPP) in Brazil. The project was started in 1999 to partner the elders and shamans of Kraho Indians and scientists at the Brazilian Federal University of Sao Paulo.<sup>74</sup> The scientists were to understudy the elders and shamans on the value and techniques of extracting medicinal properties from various plants and also acquire the relevant indigenous knowledge on the application of these medicinal plants.<sup>75</sup> However, shortly after the commencing of the project, the Kraho Indians filed a suit with the Federal Prosecutors office in Brazil claiming \$8million dollars in damages. This was because the University had allegedly proceeded with the research without

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<sup>71</sup> See the comment of Dr. Daniel Baskaran, in Santha Oojitham, 'Tacking Biopiracy Through Legislation and Co-operation' *BERNAMA*, Kuala Lumpur, May 22 2005, 1 at <<http://proquest.umi.com/pqdweb?index=4&did=844131601&SrchMode=1&sid=1&F>> at 30 September 2005.

<sup>72</sup> Ibid.

<sup>73</sup> Ibid.

<sup>74</sup> See Patrice M. Jones, 'Biopiracy Opens Old Wounds in Brazil' *Knight Rider Tribune Business News*, Washington, U.S.A. August 30 2002, 1 at

<<http://proquest.umi.com/pqdweb?index=33&did=157088371&SrchMode=1&sid=sid=1&>> at 30 September 2005.

<sup>75</sup> Ibid.

having obtained the consent of the entire Kraho ethnic group.<sup>76</sup> The contention was that the 'collective rights of the Indians were not respected in this case,' because the agreement was negotiated with only two hundred and fifty of the two thousand members of the tribe. This development led to the immediate cessation of the research to allow for further consultations between the parties.<sup>77</sup> This incident highlights one of the basic tenets of the collective rights of indigenous and local communities: that the overall groups' interests are paramount, and consultations for any access are usually all-inclusive, failing which, the materials obtained are deemed to have illegally acquired.

Instances where resource prospectors aim to deliberately circumvent the rules are likely to arise in many developing states. This is because most of these states lack the requisite mechanisms to effectively monitor the activities of visitors, tourists and legitimate resource-prospectors. Additionally, in most developing states the level of formal expertise in the area of biodiversity regulation is still below those of developed countries, and the legal infrastructure for ensuring effective formal agreements with prospective prospectors are still at embryonic stages.<sup>78</sup>

The importance of obtaining authorization from indigenous and local communities for bioprospecting activities is widely recognized. Over the years, these communities have come to deem such authorization as a pre-requisite for any prospecting activity. As was seen in the last chapter, in recent decades there have been efforts within the international community to ensure the involvement of indigenous communities in activities that impact on their welfare. This is part of the diverse mechanisms aimed at stemming allegations of marginalization of indigenous peoples and local communities

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<sup>76</sup> Ibid.

<sup>77</sup> Ibid. It was however added that the researchers have their own fears: that the growing suspicion by governments and indigenous peoples globally has been hindering worthwhile studies and could halt new discoveries that could benefit mankind.

<sup>78</sup> See generally, Rohini Acharya, *The Emergence and Growth of Biotechnology: Experiences in Industrialized and Developing Countries* (1999) 56.



by the larger international community. For instance, paragraph 20 of the *Vienna Declaration and Programme of Action* 1993 (Vienna Declaration) requests, *inter alia*, that respective states 'should ensure the full and free participation of indigenous people in all aspects of society, in particular in matters of concern to them...' <sup>79</sup>

Although the provisions of the *Vienna Declaration* are non-binding on states, other binding instruments like the *ILO Convention (No. 169) Concerning Indigenous and Tribal Peoples in Independent Countries* 1989, have made provisions in this respect. For instance, article 7(1) of the Convention provides that:

The peoples concerned shall have the right to decide their own priorities for the process of development as it affects their lives, beliefs, institutions and spiritual well-being and the lands they occupy or otherwise use, and to exercise control, to the extent possible, over their own economic, social and cultural development. In addition, they shall participate in the formulation, implementation and evaluation of plans and programmes for national and regional development which may affect them directly. <sup>80</sup>

It is submitted that this provision has conferred far-reaching rights on indigenous and communities in an attempt to give them better control over access to their knowledge systems and resources. <sup>81</sup> Although the rights granted by the provision are qualified by the catch-phrase 'to the extent possible,' it is arguable that they are still enough to require that indigenous and local communities authorize any access to, and exploitation of their

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<sup>79</sup> For the text of the *Vienna Declaration*, see

<[http://www.unhchr.ch/huridocda/huridoca.nsf/\(Symbol\)/A.CONF.157.23.En?OpenDocument](http://www.unhchr.ch/huridocda/huridoca.nsf/(Symbol)/A.CONF.157.23.En?OpenDocument)> at 2 October 2005.

<sup>80</sup> For the text of the Convention see, <<http://www.unhchr.ch/html/menu3/b/62.htm>> at 2 October 2005.

<sup>81</sup> To date the ILO Convention has been ratified by seventeen countries. These countries are Argentina, Bolivia, Brazil, Columbia, Costa Rica, Denmark, Dominica, Ecuador, Fiji, Guatemala, Honduras, Mexico, Netherlands, Norway, Paraguay, Peru and Venezuela. For the status of ratification, see <<http://www.ilo.org/ilolex/cgi-lex/ratific.pl?C169>> at 3 October 2005.

knowledge and resources.<sup>82</sup> The perceived far-reaching import of the above provision and its implications for states *vis á vis* indigenous communities apparently explains why few states have signed and ratified the Convention since 1989.<sup>83</sup>

A final point is that of determining the extent of involvement or authority, if any, that indigenous and local communities should exercise with respect to biodiversity resources within their domain. This point appears to be at the root of whether, and how, some of the allegations about 'unauthorized bioprospecting' could be redressed.

## **b. The Uncompensated and Unacknowledged Exploitation of Indigenous Knowledge and Resources**

Some five hundred products based on plants native to Peru are registered in patent offices in the United States, Europe and Japan, but many of them have been produced by breaking Peruvian laws on access to biodiversity and traditional knowledge.<sup>84</sup>

The major consequence of the unauthorized and unacknowledged appropriation of indigenous resources and related knowledge is that the concerned communities do not receive any benefits, acknowledgement or other advantages from such activities. All the versions of resource exploitation that were identified above, namely, unauthorized, uncompensated and unacknowledged appropriation, could as well be treated

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<sup>82</sup> How these provisions will fare alongside those of the CBD will be dealt with further below.

<sup>83</sup> The last countries to ratify the convention were Brazil, Dominica and Venezuela, all in 2002.

<sup>84</sup> See Mario Osava, 'South America: Amazon Nations Launch Battle Against Biopiracy' Statement of Santiago Roca, President Peru National Institute for the Defence of Competition and the Protection of Intellectual Property, 1<sup>st</sup> Intellectual Property Meeting of the Countries of the Amazon Basin, Rio de Janeiro, Brazil July 5 2005; in *Global Information Network* (New York) July 5 2005, 1, at <<http://www.williams.edu/go/native/amazon-biopiracy2005.htm>> at 3 October 2005.

together, all being linked to the central factor of denial of 'benefits' or 'advantages' to the concerned communities. According to Janke the central trait across most indigenous and local communities is that they do not have the necessary rights and mechanisms to ensure appropriate recognition, protection and financial compensation for their knowledge, resources and other allied contributions to the wider society.<sup>85</sup> This situation creates multiplier effects ensuring that, in most cases, where no compensation was paid to the relevant communities, there would also have been no acknowledgement of their contributions to the knowledge systems or resources that were utilized.<sup>86</sup>

The cases bordering on lack of compensation and acknowledgement for indigenous contributions can be quite complicated in some instances. For example, a situation where the prospective prospector(s) enters into an agreement with, and pays royalties to the state authorities to exploit some native species, while the actual prospecting activities are conducted on indigenous lands. The actual prospecting activities should then be conducted with the participation or otherwise of the local communities. In this scenario, the prospector(s) usually rely on the fact of the royalty already paid to the state authorities to justify such activities. On their part, in demanding compensation from the prospectors, the local communities usually assert the contribution they have made in nurturing the resource(s) being used. Local communities are likely to classify this scenario as biopiracy, if they receive no direct compensation.

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<sup>85</sup> See Terri Janke, *Our Culture: Our Future: Report on Australian Indigenous Cultural and Intellectual Property Rights* (1998) 13, citing ATSIC, Submission to the House of Representatives Standing Committee on Aboriginal and Torres Strait Islander Affairs, *Inquiry into Aboriginal and Torres Strait Islander Culture and Heritage*, unpublished 1994, at 24.

<sup>86</sup> *Ibid.*

It is submitted that in such circumstances, allegations of biopiracy cannot be sustained, unless made against states' authorities themselves.<sup>87</sup> However, even if such allegations are aimed at states' authorities the possibility of successfully asserting same seems rather remote. This is because the dominant principles of international law vest the authority to control the resources within every state on respective state authorities.<sup>88</sup>

As was noted in the last chapter, one of the classical examples of the cases of unacknowledged or uncompensated exploitation of resources has been the 'Smokebush' (*Conospermum* species) case from Western Australia.<sup>89</sup> The plants are commonly found along highways and adjoining lands in Western Australia and appear as extensive fields of white to grey woolly flowers, which resemble clouds of smoke, hence the name 'Smokebush'.<sup>90</sup> During laboratory tests, extracts from the Smokebush plant were found to contain properties (the drug isolated was called conocurvone) that could curb the progression of the Acquired Immune Deficiency Syndrome (AIDS).<sup>91</sup> In this case, even though the Western Australian indigenous peoples had used the Smokebush for hundreds of years, Amrad, a Victorian biotechnology company, paid the sum of \$1.5million to the Western Australian Government

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<sup>87</sup> Even if this becomes the case, the state cannot take any actions against its own interests, being the recipient of the royalties paid by the prospector(s).

<sup>88</sup> This is also viewed as one of the attributes of the doctrine of state sovereignty. See Judith Kimerling, 'Rio + 10: Indigenous Peoples, Transnational Corporations and Sustainable Development in the Amazonia' (2002) 27 *Columbia Journal of Environmental Law* 523, 529. Also see generally, Tracy D. Zobenica, 'The Public Trust Doctrine in Arizona's Streambeds' (1996) 38 *Arizona Law Review* 1053; Alberto R. Coll, 'Functionalism and the Balance of Interests in the Law of the Sea: Cuba's Role' (1985) 79 *American Journal of International Law* 891; Cherie Metcalf, 'Indigenous Rights and the Environment: Evolving International Law' (2003/2004) 35 *Ottawa Law Review* 101; Gregory F. Maggio, 'Recognizing the Vital Role of Local Communities in International Legal Instruments for Conserving Biodiversity' (1997/1998) 16 *UCLA Journal of Environmental Law and Policy* 179.

<sup>89</sup> See page 29 in chapter four. However, this case has not rivaled the controversy surrounding the prospecting, some say stealing, of the Madagascar periwinkle, that later produced two successful anti-cancer drugs: Vinblastine and Vincristine. See generally, Suman Sahai, 'Bio-Prospecting or Bio-Plunder?' at <<http://ces.iisc.ernet.in/hpg/envis/pludoc1123.html>> at 5 October 2005.

<sup>90</sup> See Kevin A. Seaton and Mark G. Webb, 'Smokebush' at <<http://www.rirdc.gov.au/pub/handbook/smokebush.html>> at 5 October 2005.

<sup>91</sup> See Hunter above n 10, 141.

for access to the Smokebush and related species.<sup>92</sup> The concerned indigenous communities were worried about having been left without any acknowledgment or benefit(s), pecuniary or otherwise, for their discovery and application of the healing properties of the Smokebush.<sup>93</sup>

In explaining what happened in the Smokebush scenario, Gerald Tooth states that it has always been unlikely that indigenous communities would ever receive any benefits from their knowledge of natural medicines.<sup>94</sup> He submits that despite the invaluable contributions of indigenous and local communities to the search for new nature-based drugs, their knowledge is rendered worthless by the intellectual property laws in most countries.<sup>95</sup> This statement appears to be generalized, but does reflect the dire circumstances in which indigenous and local communities have found themselves when attempting to balance the need to keep control of their knowledge and resources, contribute their knowledge to benefit mankind, benefit from such contributions, and at the same time trying to play within the context of conventional IPRs regimes.<sup>96</sup> In this particular case, there has been a later assertion that the relevant communities in Western Australia were able to successfully agitate for inclusion in sharing the royalties from the commercialization of products of Smokebush.<sup>97</sup>

Another good example involved the San Peoples (formerly referred to as the Bushmen) of the Kalahari region of Southern Africa. The San Peoples instituted a court action against the South African government for aiding the appropriation of their plant medicinal knowledge without any form of

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<sup>92</sup> See Mathew Rimmer, 'Blame it on Rio: Biodiscovery, Native Title and Traditional Knowledge' (2003) 7 *Southern Cross Law Review* 1, 8.

<sup>93</sup> Ibid.

<sup>94</sup> See Gerald Tooth, 'Bioprospecting in Queensland: Oceans of Opportunity, Forests of Concern' Background Briefing, ABC Radio National, Sunday 27 May 2001, cited in Rimmer above n 92, 9.

<sup>95</sup> Ibid.

<sup>96</sup> A detailed discussion on these issues will be in the next chapter.

<sup>97</sup> See Hunter above note 11, 140, quoting Pratap Chatterjee, 'Environment: Medicine Hunters Scour Rainforests, Deserts' *International Press Service*, July 10, 1995.

compensation. The South African Government had investigated the Hoodia Cactus plant,<sup>98</sup> the stems of which have been traditionally used by the San Peoples as an appetite suppressant when staying in the desert for extended periods of time.<sup>99</sup> The South African Council for Science and Industrial Research (CSIR) then patented the active molecule from Hoodia Cactus as P57 and subsequently sold the license to a British herbal medicine manufacturer, Phyto Pharma.<sup>100</sup> After further development of the extracts the company subsequently sold the rights for its commercial development to Pfizer for \$21 million as a potential anti-obesity drug.<sup>101</sup>

In all the above transactions, the local community responsible for identifying the medicinal efficacy of the plant had not been included in the arrangements. The court case instituted by the San Peoples led to a settlement whereby their customary custodial role over the Hoodia Cactus was recognized and an understanding was reached for all the parties to enter into a benefit-sharing agreement.<sup>102</sup> The operative term of the benefit-sharing agreement stipulated that if the commercial production of P57 commences, the San Peoples would be entitled to six percent (6%) of the accruing royalties.<sup>103</sup> However, there are indications that Pfizer has suspended further work on the possible commercialization of the product of this research, and that Unilever has taken over the patent rights.<sup>104</sup> It remains to be seen how successful the drug development will become, and the amount of royalties that will accrue to the San community from the sales.

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<sup>98</sup> The San Peoples called the plant 'Hoodia' or 'Xhoba' and it is also called the 'Miracle Cactus'. For details on this see 'San Bushmen Sue Pfizer' at <<http://www.dolfzine.com/page612.htm>> at 5 October 2005.

<sup>99</sup> See Gerard Bodeker above n 12, 795-6.

<sup>100</sup> Ibid.

<sup>101</sup> Ibid.

<sup>102</sup> See Bodeker above n 12, 795-6, citing Tamar Kahn, 'Prickly Dispute Finally Laid to Rest' at AllAfrica.com at <<http://allafrica.com/stories/200203220129.html>> at 6 October 2005.

<sup>103</sup> See Case Study: Hoodia Cactus (South Africa) at <<http://home.cwru.edu/~ijd3/authorship/hoodia.html>> at 6 October 2005.

<sup>104</sup> See 'The History of Hoodia' at <<http://www.hoodia-advice.org/hoodia-history.html>> at 30 June 2006.

The case involving the San Peoples and similar cases present conceptual and practical difficulties in attributing biopiracy to any of the parties involved. This is because it could be argued that all the parties involved in Hoodia Cactus bioprospecting had acted within the confines of the law, recognizing that sovereign rights over the resources within a state vest in the government.<sup>105</sup> In this respect, it appears that the issue of not compensating the traditional custodians of such resources for their roles assumes a somewhat moral dimension. However, a contrary argument could be that even if the resources within a state belong to the government, the same could not be said of the local knowledge used to identify the many traditional uses and medicinal properties of such resources (e.g. plants). In this instance, local communities could still claim compensation for their knowledge, if not for the resources *per se*, in line with article 10(c) and 8(j) of the CBD.

As variously noted in chapters three and four of this work, article 8(j) of the CBD requires the equitable sharing of the benefits of utilizing indigenous innovations and practices. Article 10(c) mandates respective states to, among other things, 'protect and encourage customary use of biological resources in accordance with traditional cultural practices that are compatible with conservation or sustainable use requirements.' It could therefore be argued that any state that fails to ensure adequate compensation for indigenous and local communities for their plant medicinal or other genre of knowledge, could not be seen to be 'encouraging the customary use of biological resources,' or ensuring the equitable sharing of the benefits therefrom.

### **c. Access to 'Inaccessible' Knowledge and Resources**

A fact that is sometimes lost on non-indigenous audiences is that there are instances when access to indigenous resources or knowledge systems cannot

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<sup>105</sup> See article 3, 8 and 15 of the CBD and article 10 of the ITPGR among others.

be authorized, because such knowledge or resources are considered inaccessible and unexploitable by person(s) outside the particular local community.<sup>106</sup> In these instances, questions relating to access and compensation do not arise, because, in the perception of the communities concerned, these resources have the attribution of certain qualities or significance over which no pecuniary considerations could be placed.<sup>107</sup> This is usually the case where a community's sacred knowledge is in issue, or, if the resources are tangible, when they are situated within sacred groves that can only be accessed by certain initiated members of the community.<sup>108</sup>

An example of the above scenario is with knowledge systems, ceremonies or healing practices that also have religious connotations. Several indigenous and local communities believe that some of their religious ceremonies are sacred legacies handed down to them by their successive ancestors.<sup>109</sup> Consequently, these ceremonies are usually entrusted to select practitioners with specialized knowledge within the communities concerned. These practitioners also have the concomitant responsibility to guard and practice the ceremonies with the utmost care and respect while avoiding any improper dissemination of such knowledge.<sup>110</sup> Among other things, the sacred nature of the knowledge in question, the fear of its abuse, and the intricate nature of the ceremonies involved are some of the reasons that necessitate the actions of indigenous communities in refusing access to uninitiated persons.<sup>111</sup> The same is true of resources that are attributed with both medicinal and religious (or magical) significance.

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<sup>106</sup> See Rebecca Tsosie, 'Reclaiming Native Stories: An Essay in Cultural Appropriation' (2002) 34 *Arizona State Law Journal* 299, 314.

<sup>107</sup> Ibid.

<sup>108</sup> See Graham Dutfield, 'TRIPS-Related Aspects of Traditional Knowledge' (2001) 33 *Case Western Reserve Journal of International Law* 233, 245.

<sup>109</sup> See Tsosie above n 106, 314.

<sup>110</sup> Ibid. See also Marie Battiste and James Y. Henderson, *Protecting Indigenous Knowledge and Heritage: A Global Challenge* (2000) 140-141.

<sup>111</sup> Ibid.



Of all the reasons adduced above, the commercialization of sacred knowledge, misapplication of such knowledge by unqualified persons, and the desecration of sacred groves and resources appear to the most worrisome to indigenous communities.<sup>112</sup> There are other concerns and the gravity attached to each situation could vary among communities. However, several indigenous communities view as seriously unacceptable, situations where unauthorized persons unfamiliar with their cultures, traditions and languages pretend to practice sacred indigenous ceremonies, especially when it is done for commercial or other personal benefits.<sup>113</sup> There are also situations where even those that are the custodians of certain knowledge systems or resources within communities do not have the right to divulge such knowledge or alienate such resources to outsiders under any guise. Strictly speaking, therefore, external access to such knowledge or allied resources cannot be authorized, as they are inaccessible and unexploitable by outsiders.<sup>114</sup>

In the Australian case of *Foster v. Mountford*,<sup>115</sup> a research anthropologist toured the Northern Territory in the 1940's and was in confidence let into some of the sacred knowledge systems and sacred groves of the Pitjantjatjara people.<sup>116</sup> When the researcher subsequently published a book detailing aspects of the sacred sites and revealing aspects of the sacred knowledge to the public without authorization from the relevant community, an injunction was granted to stop further publication of the book.<sup>117</sup> This implies that the law can provide a relief in some of these instances, although the efficacy of such a relief depends on the nature of the harm. This is because some

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<sup>112</sup> Ibid. See also Mark Suchman, 'Invention and Ritual: Notes on the Interrelation of Magic and Intellectual Property in Preliterate Societies' (1989) 89 *Columbia Law Review* 1264, 1288-1289.

<sup>113</sup> Ibid.

<sup>114</sup> See Robert F. Blomquist, 'Protecting Nature Down Under: An American Law Professor's View of Australia Implementation of the Convention on Biological Diversity - Laws, Policies, Programs, Institutions and Plans, 1992-2000 (2000) 9 *Dickinson Journal of Environmental Law and Policy* 227, 339.

<sup>115</sup> (1976) 14 ALR 71, cited in Janke above n 85, 73.

<sup>116</sup> Ibid.

<sup>117</sup> There was another case of this nature in *Pitjantjatjara Council Inc and Peter Nguningu v. Lowe and Bender* (1982) Supreme Court of Victoria, Unreported, in Janke above n 85, 73.

breaches, for instance, exposing sacred objects to person(s) that are not otherwise permitted to see such objects, would be hard to remedy.

Although the Mountford case above might not be regarded as a classical example of biopiracy since no biodiversity or genetic materials were involved, there is an increasing tendency by local communities to classify all manners of misuse of their knowledge and resources by outsiders as 'piracy.' The problem with this classification is that it is usually difficult for visitors to these communities to quickly appreciate the nature of 'spirituality and territorial allegiance' that these communities attach to the knowledge that has been shared with the visitors in good faith. For instance, there are instances where certain knowledge systems could be 'lent' to visitors to enable them to temporarily survive and subsist while still within the boundaries of the communities in question.<sup>118</sup> Essentially, these knowledge systems are usually given out on the express or implied covenant that they should be utilized within the communities and never outside.<sup>119</sup> Even though these communities usually view a breach of this covenant as serious desecration of their spirituality that could be an invitation to chaos for themselves,<sup>120</sup> it is sometimes difficult to impart such level of community's spiritual allegiance on visitors.

The situations as described above are problematic because they mostly involve persons from outside the local communities in question. However, there could also be instances where breaches of established cultural norms involve members of the community concerned who share the same cultural values, traditions and beliefs with the rest of the community.<sup>121</sup> In these instances, the community concerned uses its self-regulating mechanisms to

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<sup>118</sup> See Battiste and Henderson above n 110, 67.

<sup>119</sup> Ibid.

<sup>120</sup> Ibid.

<sup>121</sup> See Amina Para Malton, 'Safeguarding Native American Sacred Art by Partnering Tribal Law and Equity: An Exploratory Case Study Applying the Bulun Bulun Equity to Navajo Sandpainting' (2004) 27 *Columbia Journal of Law and Arts* 211, 240-241.

deal with its erring members, usually involving moral sanctions, and depending on the outcomes, other sanctions intended to correct the cultural or religious infractions.<sup>122</sup>

As was seen in last chapter, several states have adopted local instruments that regulate access to biodiversity and genetic resources. In their regulatory functions, some of these instruments also indicate areas that are considered inaccessible to external prospectors. In the second part of this chapter below, the regulatory instruments considered in the last chapter will be used, for the same reasons,<sup>123</sup> to examine some of the subject areas that are considered inaccessible for bioprospecting activities.

## 5.2. Inaccessible Subjects in Domestic Jurisdictions

In recognition of the importance attached to some aspects of indigenous knowledge systems by local communities, and the need to protect their sanctity, sacredness or utility, several countries have made provisions in their laws, expressly or implicitly, to exclude access to certain subject matters, biodiversity resources, and aspects of indigenous knowledge systems.<sup>124</sup> This section will consider the different ways in which this type of exclusion has been implemented.

### a. Australia

The Australian *Environmental Protection and Biodiversity Conservation (Amendment) Regulations (No. 2) (Cth) 2005* (the Regulations) regulate access to biodiversity and related resources. However, the Regulations consider some

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<sup>122</sup> Ibid.

<sup>123</sup> See section 4.3.2 of chapter four.

<sup>124</sup> Some other countries to have done this include, Pakistan: article 3(2) of the *Draft Law on Access and Community Rights* 2004. For the text of the law, see <<http://www.grain.org/brl/?docid=683&lawid=1456>> at 1 July 2006. Costa Rica: article 4 of the *Biodiversity Law* 1998. For the text of the Law, see <<http://www.grain.org/brl/?docid=475&lawid=1859>> at 1 July 2006.

subject matters as being outside their purview, and, therefore, not within the meaning of 'access to biological resources.'<sup>125</sup>

With specific reference to indigenous and local communities, paragraph 3(a)(b) and (c) of Regulation 8A.03, states that the provisions do not apply to the cultivation, nurturing, or use of biological resources by indigenous communities, except if the materials are to be used for purposes of research and development of the genetic resources of such materials, or their biochemical compounds. Neither the Act nor the Regulations define 'research and development.' However, it is argued that traditional practices involved in the use and improvement of medicinal plants are not within purview of the Regulations, because it would be difficult to separate such practices from the daily subsistence lives of local communities. The Regulations also exclude materials taken in the exercise of the native title rights or interests of indigenous communities.<sup>126</sup>

The major implication of the above provisions is that biological resources that are required for subsistence activities of local communities, including those used for traditional medicinal purposes, food and nutrition, inter-community exchanges, among others, are excluded from access activities. Considering the definition of 'biological resources' under the *Environmental Protection and Biodiversity Conservation Act (Cth) 1999 (EPBCA)*,<sup>127</sup> the scope of indigenous biological resources covered the Regulations is broad. The EPBCA defines biological resources to include 'genetic resources, organisms, parts of organisms, populations and any other biotic component of an ecosystem with actual or potential use or value for humanity.'<sup>128</sup>

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<sup>125</sup> See Paragraph 8A.03 of the Regulations.

<sup>126</sup> See paragraph 3(a)(i) of Regulation 8A.03. The details of the rights and interests referred to are in the *Native Title Act (Cth) 1993*. For the text of the Act, see <[http://www.austlii.edu.au/au/legis/cth/consol\\_act/nta1993147/](http://www.austlii.edu.au/au/legis/cth/consol_act/nta1993147/)> at 15 August 2006.

<sup>127</sup> See section 528 of the EPBCA. For the text of the Act, see <[http://www.frli.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/7907388A15AA264CCA257000000B1E0F/\\$file/EnvProtBioDivCons99Vol2WD02.pdf](http://www.frli.gov.au/ComLaw/Legislation/ActCompilation1.nsf/0/7907388A15AA264CCA257000000B1E0F/$file/EnvProtBioDivCons99Vol2WD02.pdf)> at 15 August 2006.

<sup>128</sup> See section 528 of the Act.

Added to the above, the Regulations take cognizance of the sensitivity of human remains to indigenous and local communities.<sup>129</sup> In this respect, paragraph 3(b) of Regulation 8A.03 provides that access to human remains does not count as access to biological resources, foreclosing any doubt on the possibility of external access to any such sacred materials.

## **b. Brazil**

Brazil is a member of the group that is self-styled Like-Minded Megadiverse Countries (LMCC). These are countries that, among them, hold between sixty to seventy percent of the world's biodiversity and genetic resources.<sup>130</sup> The members are Bolivia, Brazil, China, Costa Rica, Colombia, Ecuador, India, Indonesia, Kenya, Mexico, Malaysia, Peru, Philippines, South Africa and Venezuela.<sup>131</sup>

The large number of Brazil's indigenous populations and the richness of its biodiversity resources necessitate laws to regulate the nature of access to these resources and related knowledge. Brazil's Draft *Bill of Law No. 306/95* (as amended)<sup>132</sup> (Access to Genetic Resources) makes some provisions that limit bioprospecting activities to certain subject matters. While the Law makes general provisions for accessing genetic resources, article 8(1) provides that its provisions do not apply to genetic materials and any component(s) of human beings.<sup>133</sup> The Law also does not regulate the exchange of genetic resources,

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<sup>129</sup> See generally, Ryan M. Seidemann, 'The Bones of Contention: A Comparative Examination of Laws Governing Human Remains from Archaeological Context in formerly colonial Countries' (2004) 65 *Louisiana Law Review* 525.

<sup>130</sup> See The Third World Network Biosafety Information Service: 'Megadiverse Countries Join Efforts for Strong International Law on Access and Benefit Sharing' <<http://www.twinside.org.sg/title2/service157.htm>> at 30 June 2006.

<sup>131</sup> *Ibid.*

<sup>132</sup> For the text of the Bill of Law 1995, see <<http://www.lclark.edu/org/ielp/brazilgenetic.html>> at 10 October 2005.

<sup>133</sup> There is however a proviso to this provision, subjecting any access to human genetic resources to the state's Executive Power, and with the 'justified prior consent' of the individual concerned. It appears that using the word 'justified' to qualify 'consent' means that the reason(s) for any consent by an individual will have to be defended before the state's authorities.

traditional crops, derived products or associated knowledge that are customarily exchanged by indigenous and local communities 'among themselves, for their own purposes and based on their customary practices.'<sup>134</sup> It is not clear if any commercial activity could be factored into the customary practices of these communities, although it is arguable that traditional customary exchanges of commercial nature, like trade by barter, are still permissible as 'customary practices.'<sup>135</sup>

Even though the Bill is still with the Brazilian Congress and has not been passed into law, its provisions indicate the eventual direction of the law in dealing with subjects that are important and sensitive to local communities.

In a related development, article 3 of the Brazilian *Provisional Measure* (On Access to Genetic Resources and Traditional Knowledge) No. 2.186-16 2001<sup>136</sup> excludes human genetic resources from its application.<sup>137</sup> On the other hand, article 4 preserves the customary exchange of 'components of the genetic heritage and associated traditional knowledge practised within indigenous and local communities for their own benefit and based on customary usage.' As with the positions in Australia, the *Provisional Measure* also treats the preservation of resources relating to subsistence of indigenous communities as sacrosanct. In this respect no form of external access or prospecting activity is allowed to infringe on this area.

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<sup>134</sup> See article 8(2).

<sup>135</sup> Ibid.

<sup>136</sup> For the text of the *Provision Measure* 2001, see

<<http://www.grain.org/brl/?docid=850&lawid=1768>> at 11 October 2005.

<sup>137</sup> The general access provisions of the law were discussed in the last chapter.

## c. India

In India, the *Biological Diversity Rules 2004*<sup>138</sup> (the Rules) empower the National Biodiversity Authority (the Authority)<sup>139</sup> to restrict, or prohibit, access to any biodiversity material(s) if it deems fit. Under section 16(1)(iii) of the Rules, the authority may exercise its powers when the 'request for access may likely result in adverse effect on the livelihood of local people.' Furthermore, under section 16(1)(v) the Authority may also do the same if it believes that such access may cause genetic erosion or affect the general ecosystems function.

These provisions are wide and imprecise, and allow the authority wide latitude in determining when to restrict or prohibit access to biodiversity resources. As will be seen below, the relevant law in South Africa also adopts this procedure. In relation to the interests of Indian local communities, it is arguable that these provisions cover wide subject matters, including materials for subsistence and exchange, and those that are culturally sensitive to the local communities. This is because, in all cases, there is no doubt that access to such materials would have 'adverse effects' on their livelihood.

## d. The Philippines

As was discussed in the last chapter,<sup>140</sup> in the Philippines, in the area of access to biodiversity resources and related knowledge, the *Administrative Order No. 96-20 of 1996 (the Order) (Implementing Rules and Regulations on the Prospecting of Biological and Genetic Resources)*<sup>141</sup> is one the key regulatory instruments.

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<sup>138</sup> For the text of the Rules, see <[http://www.grain.org/brl\\_files/India-biodiversity-rules-2004.pdf](http://www.grain.org/brl_files/India-biodiversity-rules-2004.pdf)> at 17 August 2006.

<sup>139</sup> The Authority is established under section 8(1) of the *Biodiversity Act 2002*. For the text of the Act, see <[http://www.grain.org/brl\\_files/india-biodiversityact-2002.pdf](http://www.grain.org/brl_files/india-biodiversityact-2002.pdf)> at 17 August 2006.

<sup>140</sup> See section 4.3.2 of chapter four.

<sup>141</sup> For the text of the Order, see <[http://www.grain.org/brl\\_files/philippines-bioprospectingeo247-1996-en.doc](http://www.grain.org/brl_files/philippines-bioprospectingeo247-1996-en.doc)> at 10 October 2005.

In its regulatory functions, the Order does not apply to any activity that could be classified as 'traditional use.' Section 2(bb) defines 'traditional use' to include any 'customary utilization of biological and genetic resources by the local community and indigenous people in accordance with written or unwritten rules, usages, customs and practices traditionally observed...by them.' This provision is intended to secure the subsistence lifestyles and exchange traditions of the various indigenous and local communities. Consequently, any form of external access that could impede these customary practices is outside the protection of the Order and potentially a basis for remedial actions. This is exemplified by section 9(2) of the Order, which authorizes indigenous communities to rescind any prospecting agreement if the effect of such activity impairs their rights to the traditional use of the biodiversity resources in question.

## **e. South Africa**

In South Africa, section 86 of the *National Environmental Management: Biodiversity Act 2004*,<sup>142</sup> empowers the Minister for the Environment to publish by a notice in Gazette a declaration excluding any indigenous resource(s) from bioprospecting activities. The notice could be amended or withdrawn at anytime at the Minister's discretion, after due consultations.<sup>143</sup> Section 1 of the Act defines 'indigenous resource' as 'any living or dead animal, plant, or other organisms of an indigenous species', and their derivative or genetic materials.

As with India above, these are generalized provisions, and there are no stated criteria that would guide the action(s) of the Minister. It is arguable, however, that the Minister's action(s) must be guided by the overall subsistence and cultural sensitivities of local communities, including all their socio-cultural

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<sup>142</sup> For the text of the *Biodiversity Act 2004* see

<[http://www.environment.gov.za/PolLeg/Legislation/2004Jun7\\_2/Biodiversity%20Act-7%20June%202004.pdf](http://www.environment.gov.za/PolLeg/Legislation/2004Jun7_2/Biodiversity%20Act-7%20June%202004.pdf)> at June 10 2005.

<sup>143</sup> The processes for consultation are listed in sections 99 and 100 of the Act.



practices and spiritual beliefs. Other factors would include the preservation and regeneration of the communities' ecosystems.

## **f. Summary of Discussions**

The above discussions have highlighted an area where the international community has not focused its attention, that is, materials over which local communities do not permit prospecting activities. For example, local communities tend to treat some aspects of biodiversity (plants and animals) both as means of production for food and sustenance, and as end products themselves.<sup>144</sup> Consequently, any attempt to compartmentalize inputs for production and the end 'products' for purposes of assigning entitlements or rights by non-traditional methods will confuse these communities. To a large extent, the subject matters involved are traditionally meant for internal community use, inter and intra-community exchanges, or are deemed sacred and inviolable. The above discussions indicate that states have either expressly or impliedly excluded some of these sensitive materials from bioprospecting activities, or have reserved the right to do so.

On the contrary, international instruments on biodiversity and related issues have not made express provisions relating to the above issue, and this has necessitated that some states do not have provisions that exclude sensitive indigenous subjects from bioprospecting activities. It is doubtful whether the international community fully appreciates the indigenous perspective on this issue, in terms of attaching property rights and entitlements. This is because conventional property rights are usually clear-cut assignments of superior and subordinate rights, like the relationship between ownership and

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<sup>144</sup> See Vandana Shiva, 'Biodiversity, Biotechnology and Profits' in Vandana Shiva et al (eds), *Biodiversity: Social and Ecological Perspectives* (1991) 43, 51.

leasehold rights.<sup>145</sup> On the contrary, indigenous rights are not usually so clear-cut, principally because of the preponderance of collectivity of rights and interests.<sup>146</sup> As a result, the rights of individual members of a community, especially in issues relating to landed property, are in most cases defined through their relationships with the other members of the community, the family or the clan.<sup>147</sup>

The lack of appreciation by non-indigenous audiences of the peculiar nature of indigenous rights, including their cultural and normative distinctiveness, seems to have compounded the struggle for recognition of indigenous rights. This is because certain issues that should have been taken for granted, for instance, issues about cultural susceptibilities of indigenous communities, continue to pose problems for non-indigenous audiences. A clear example is the issue of attempting to access or research human (indigenous) genetic resources for any reasons(s) at all. This issue is fully discussed below.

### **5.3. The Problem of Accessing (Indigenous) Human Genetic Resources**

Several developments in recent decades appear to support the notion that non-indigenous entities continue to make errors of judgment in appraising the procedure for access to biodiversity resources and related knowledge of indigenous communities. The first error has been the tendency to classify

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<sup>145</sup> For the implication of these rights in commercial agreements, see generally Anthony J. Vlatas, 'An Economic Analysis of Implied Warranties of Fitness in Commercial Leases' (1994) 94 *Columbia Law Review* 658.

<sup>146</sup> See the discussions in chapter one of this work. Also, see generally Larry N. Chartrand, 'Re-conceptualizing Equity: A Place for Indigenous Identity' (2001) 19 *Windsor Yearbook of Access to Justice* 243.

<sup>147</sup> See the discussions in chapters one and two of this work. Also, see generally, John Moustakas, 'Group Rights in Cultural Property: Justifying Strict Inalienability' (1989) 74 *Cornell Law Review* 1179; Darlene M. Johnston, 'Native Rights as Collective Rights: A Question of Group Self-Preservation' (1989) 2 *Canadian Journal of Law and Jurisprudence* 19; Leighton McDonald, 'Can Collective and Individual Rights Co-exist?' (1998) 22 *Melbourne University Law Review* 310; Joseph E. Magnet, 'Collective Rights, Cultural Autonomy and the Canadian State' (1986) 32 *McGill Law Journal* 170.

'benefits' and 'advantages' from bioprospecting in terms of economic parameters of technology transfer, and other pecuniary indices.<sup>148</sup> The second error relates to the assumption that once there are arrangements for informed consent and benefit-sharing between the concerned local communities and resource prospector(s),<sup>149</sup> then prospecting activities could proceed without any hitch. Experience has shown that this is not usually the case, since, as discussed above, local communities consider some materials and resources as inaccessible under any circumstance.

From the discussions so far in this chapter, three subject areas could be identified as being sensitive to local communities in terms of allowing external access. The first relates to the resources and knowledge systems that are considered sacred by the particular community.<sup>150</sup> The second relates to the resources and knowledge systems that have been used customarily for subsistence purposes and traditional exchanges by the communities in question.<sup>151</sup> The third subject relates to human genetic resources.<sup>152</sup> There is a

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<sup>148</sup> The international community is also guilty of this mistake in attempting to globalize the application of IPRs through the TRIPS Agreement. See, for instance, Valentina Tejera, 'Tripping Over Intellectual Property Rights: Is it Possible to Reconcile the Convention on Biological Diversity with Article 27 of the TRIPS Agreement?' (1999) 33 *New England Law Review* 967; Daniel Gervais, 'Traditional Knowledge and Intellectual Property: A TRIPS-Compatible Approach' (2005) *Michigan State Law Review* 137; David R. Downes, 'How Intellectual Property Could Be a Tool to Protect Traditional Knowledge' (2000) 25 *Columbia Journal of Environmental Law* 253.

<sup>149</sup> For the internationally acceptable standards for prior informed consent, see Joji Carino, 'Indigenous Peoples' Right to Free, Prior, Informed Consent: Reflections on Concepts and Practice' (2005) 22 *Arizona Journal of International and Comparative Law* 19.

<sup>150</sup> See for instance Gregory E. Kaebnick, 'On Genetic Engineering and the Idea of the Sacred: A Secular Argument' (2001) 13 *St. Thomas Law Review* 863; Marcia Yablon, 'Property Rights and Sacred Sites: Federal Regulatory Responses to American Indian Religious Claims on Public Land' (2004) 113 *Yale Law Journal* 1623; David S. Johnston, 'The Native American Plight: Protection and Preservation of Sacred Sites' (2002) 8 *Widener Law Symposium Journal* 443; Kevin J. Worthen, 'Protecting the Sacred Sites of Indigenous Peoples in U.S. Courts: Reconciling Native American Religion and the Rights to Exclude' (2001) 13 *St. Thomas Law Review* 239.

<sup>151</sup> See Manuel Ruiz, Isabel Lapena and Susanna E. Clark, 'The Protection of Traditional Knowledge in Peru: A Comparative Perspective' (2004) 3 *Washington University Global Studies Law Review* 755, 779.

<sup>152</sup> See some of the concerns raised in Lorraine Sheremeta and Bartha M. Knoppers, 'Beyond the Rhetoric: Population Genetic and Benefit-Sharing' (2003) 11 *Health Law Journal* 89, 90-93. It should be noted that non-indigenous communities also have different types of concerns with

tendency by some local communities to treat the first and the third items together because human genetic resources are considered to be sacred in nature by these communities.<sup>153</sup>

A case in point on the lack of appreciation of indigenous cultural sensitivity to human genetic resources was the initiation of the ill-fated Human Genome Diversity Project (HGDP). The HGDP should not have been conceptualized by its promoters if correct assessment of the cultural and spiritual sensibilities of indigenous groups with respect to human genetic resources had been undertaken. Such an assessment would have revealed that most indigenous groups consider the subject area inviolable and inaccessible. Therefore, they often treat any request for access to these materials with circumspection, and sometimes, revulsion.

The HGDP was constituted by an informal consortium of several universities and scientists in Europe and North America that planned to collect samples from some 700 indigenous communities around the world.<sup>154</sup> The stated major purpose of the Project was to preserve the genetic map of different ethnic groups because their peculiar genetic characteristics could prove invaluable to the future of medicine.<sup>155</sup> According to Professor Lock, the Project was mired in several controversies, the major one being the nature and extent of consultation that was had with the potential sample donors.<sup>156</sup> Other expressed concerns were that the HGDP was moulded on questionable

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respect to research involving human resources. See generally Don Chalmers, 'Research Involving Humans: A Time for Change?' (2004) 32 *Journal of Law Medicine and Ethics* 583.

<sup>153</sup> Some of the domestic instruments discussed appear to have tacitly adopted such an approach.

<sup>154</sup> See Roht-Arriaza above n 61, 947.

<sup>155</sup> Ibid.

<sup>156</sup> See Margaret Lock, 'Genetic Diversity and the Politics of Difference' (1999) 75 *Chicago-Kent Law Review* 75, 88-89. See also Fatimah L.C. Jackson, 'Anthropological Measurement: the Mismeasure of African Americans' (2000) 568 *Annals* 154, 157-158. (Highlighting the faulty framework of the HGDP).

scientific basis, while its avowed benefits to humanity could not easily be ascertained.<sup>157</sup>

The Project was still at its infancy when several indigenous communities and human rights groups vehemently opposed such an initiative. Indigenous communities around the world and human rights groups nick-named it the 'Vampire Project',<sup>158</sup> while others regarded it as a version of 'imperialism' and 'scientific colonialism'.<sup>159</sup> According to Galtung, 'a major aspect of scientific colonialism is the idea of unlimited access to data...just as the colonial power felt it had the right to ...any product of commercial value in the territory.'<sup>160</sup> These perceptions of the project and other varied concerns led to the general consensus that it should be suspended.<sup>161</sup>

The concerns of indigenous communities on the project were varied and were summarized in some of the Declarations and Statements condemning the exercise. For instance, paragraph 3.5 of the *Mataatua Declaration on the Cultural and Intellectual Property Rights of Indigenous Peoples 1993*,<sup>162</sup> urged a halt to the project until its moral, ethical, socio-economic and other implications were discussed and approved by indigenous communities. In a related development, the *Declaration of Indigenous Peoples of the Western Hemisphere*

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<sup>157</sup>Ibid. See also Dorothy Nelkin and Lori B. Andrews, 'Introduction: The Body, Economic Power and Social Control' (1999) 75 *Chicago-Kent Law Review* 3.

<sup>158</sup> See Russell L. Barsh, 'Pharmacogenomics and Indigenous Peoples: Real Issues and Actors' (2003) 11 *Cardozo Journal of International and Comparative Law* 365. Also see generally Matthew L.M. Fletcher, 'Theoretical Restriction on the Sharing of Indigenous Biological Knowledge: Implications for Freedom of Speech in Tribal Law' (2005) 14 *Kansas Journal of Law and Public Policy* 525.

<sup>159</sup> See generally Laurie A. Whitt, 'Indigenous Peoples, Intellectual Property and the New Imperial Science' (1998) 23 *Oklahoma City University Law Review* 211.

<sup>160</sup> Ibid 228, citing Johan Galtung, 'After Camelot, in Irving Horowitz, *The Rise and Fall of Project Camelot* (1967) 300.

<sup>161</sup> In 1997, the *Ukupseni Declaration* on the HGDP maintained that the Project violated the genetic integrity of indigenous peoples and constituted an act of theft and piracy against indigenous interests. For the text of the Declaration, see

<[http://www.ipcb.org/resolutions/htmls/dec\\_ukupseni.html](http://www.ipcb.org/resolutions/htmls/dec_ukupseni.html)> at 12 October 2005.

<sup>162</sup> The *Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples 1993*. For the text of the Declaration, see <<http://aotearoa.wellington.net.nz/imp/mata.htm>> at 1 July 2006.

*Regarding the Human Genome Diversity Project 1995*, also opposed the HGDP and any attempt to commercialize or patent human genetic materials.<sup>163</sup>

It is not possible to enumerate all the points of objection raised by indigenous communities against the project. Apart from the issues of non-consultation with the relevant communities, and the doubt expressed about the utility of the HGDP to these communities, the most fundamental objection was that the human person (blood, gene etc) is sacred and inviolable. This reconfirmed indigenous views on the sanctity of the human person. According to Debra Harry, 'we don't view our genes as protein actions ready to be interpreted, for us our genes are sacred.'<sup>164</sup> In essence, seen from indigenous peoples' perspective, the HGDP could have interfered 'in a highly sacred domain of indigenous history, survival and commitment to future generations.'<sup>165</sup> This is especially true when the researchers that participated in the study could not guarantee to the various indigenous communities the absolute non-commercialization of the study results in future.<sup>166</sup>

The comments above do not mean that an indigenous community could not, on its own accord, and for its own purposes, decide to participate in research experiments involving human samples. There is also the possibility that a community might decline consent to a particular study while some individual members of the community could be allowed to submit samples to the researchers.<sup>167</sup> The constant fear among indigenous communities has always been the misuse or desecration of collected samples by researchers. A case in point relates to the study by Dr. Richard Ward of Oxford University, who had collected blood samples from nine hundred members of the Nuuchah-Nulth

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<sup>163</sup> The *Declaration of Indigenous Peoples of Western Hemisphere on Human Genome Diversity Project* 1995. For the text of the Declaration, see <[http://www.tebtebba.org/about\\_us/publications/special/Declaration/DeclarationText.pdf](http://www.tebtebba.org/about_us/publications/special/Declaration/DeclarationText.pdf)> at 1 July 2006.

<sup>164</sup> See Declan Butler, 'Genetic Diversity Proposal Fails to Impress International Ethic Panel' *Nature*, 5 October 1995, 373 in Laurie Ann Whitt above n 159, 238.

<sup>165</sup> Ibid.

<sup>166</sup> Ibid.

<sup>167</sup> See Keith Joseph, 'Ethical Aspects of Genetic Screening' (1997) *Young Lawyers News* 5-6 in Janke above n 85.

peoples of British Columbia, Canada, in the 1980's.<sup>168</sup> The purpose of the study was to help initiate research on the nature and probable treatment of arthritis diseases prevalent within the Nuu-Chah-Nulth nation at the time.<sup>169</sup> The community later discovered that the researcher had used their blood samples for other unrelated studies without their consent and the entire study was discontinued.<sup>170</sup> This type of scenario was one of the key issues that haunted the HGDP.

As already noted, an overall assessment of the HGDP reveals that it was an initiative that misjudged the cultural and religious sensitivities of indigenous communities. Therefore, it was not surprising that the *Model Ethical Protocol*<sup>171</sup> that was drafted to help secure the consent of the indigenous peoples, as comprehensive as it was, achieved nothing. This is because it was the subject matter of the intended study, (considered inaccessible by indigenous groups) and not the procedure for such study, that was of greatest concern to local communities. This is apparently due to the holistic view of life and the belief in the sanctity of the human person that pervade most indigenous communities.<sup>172</sup>

It is difficult to conclude definitively whether any lesson(s) was learnt from the failure of the HGDP initiative. According to the Indigenous Peoples Council on Biocolonialism (IPCB), the National Geographic Society (NGS) and the IBM Corporation<sup>173</sup> have recently launched a new five-year project

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<sup>168</sup> See 'Blood Promise' <[http://www.ipcb.org/issues/human\\_genetics/index.html](http://www.ipcb.org/issues/human_genetics/index.html)> at 14 October 2005.

<sup>169</sup> Ibid.

<sup>170</sup> Ibid.

<sup>171</sup> See the *Model Ethical Protocol for Collecting DNA Samples* 1997 (North American Regional Committee-Human Genome Diversity Project) at <<http://www.stanford.edu/group/morrinst/hgdp/protocol.html>> at 14 October 2005.

<sup>172</sup> Some other religious and cultural groups like the Christians and the Jews also believe in the sanctity of the human person. See generally Dena S. Davis, 'Method in Jewish Bioethics: an Overview' (1994) 20 *Journal of Contemporary Law* 325.

<sup>173</sup> The official site of the 'Genographic Project' is at <<https://www5.nationalgeographic.com/genographic/>> at 14 October 2005.

called the 'Genographic Project' (the GP).<sup>174</sup> Like the HGDP, the GP is also intended to collect 100,000 blood samples from indigenous and local communities in several locations around the world in order to 'chart new knowledge about the migratory history of the human species, and answer age-old questions surrounding the genetic diversity of humanity.'<sup>175</sup> It is intended that experts in ten regional research centres in Australia, Brazil, China, France, India, Lebanon, Russia, South Africa, the United Kingdom, and the United States will coordinate voluntary collection of genetic materials, to be analyzed by scientists at IBM's Computational Biology Centre in the United States.<sup>176</sup> This is to enable the scientists to determine the entire migratory patterns of humans.<sup>177</sup>

As expected, several indigenous groups and human rights organizations around the world are calling the GP a renewed attempt to further the goals of the defunct HGDP.<sup>178</sup> Even though the promoters of the GP initiative have denied this linkage, it is not clear why the patterns and modalities for the HGDP and the GP involve almost identical processes. It is also not clear what prompted the latest attempt at this genre of experiment after the vehemence with which indigenous groups resisted the HGDP. A simple conclusion would be that the progenitors of the GP initiative do not appreciate the underlying fundamentals of indigenous cultures, traditions, religions and social relations.

As was stated in chapters one and three of this work, while most indigenous cultures rely on past mores of the peoples to shape their present and future

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<sup>174</sup> See 'IPCB Action Alert to Oppose the Genographic Project' <[http://www.ipcb.org/issues/human\\_genetics/htmls/action\\_geno.html](http://www.ipcb.org/issues/human_genetics/htmls/action_geno.html)> at 14 October 2005.

<sup>175</sup> Ibid.

<sup>176</sup> Ibid.

<sup>177</sup> See Tina Butler, 'National Geographic's Genographic Project: Whose Blood, Whose History, Whose Gain?' at <[http://news.mongabay.com/2005/0509-tina\\_butler.html](http://news.mongabay.com/2005/0509-tina_butler.html)> at 14 October 2005.

<sup>178</sup> Ibid.



allegiances, their social relations are mostly based on intricate systems of tribes and kinship affiliations. The kinship system allows for the maintenance of relative uniformity of beliefs, and enhances unanimity of decision-making within the groups. In this way, the process of deciding whether to resist any initiative that is deemed desecrating to indigenous cultures and beliefs is made simpler with few dissensions. This peculiar trait, which runs through most indigenous and local communities, is what the promoters of the GP will have to contend with.

A picture that has emerged from the discussions in this chapter is that the notion of biopiracy has been complicated by other incidences of appropriation of indigenous knowledge systems and resources. These are instances where the subject matter(s) in question does not relate to biodiversity or genetic resources. It appears that for several indigenous and local communities, the term biopiracy has assumed a generic meaning that includes any act(s) of illegal, unacknowledged or uncompensated appropriation of resources, knowledge or practices whether biodiversity related or not. With this development, the conventional notion of biopiracy has been expanded. In the section below, the subject of biopiracy will be considered in terms of indigenous perceptions of international laws protecting intellectual property rights, specifically, the TRIPS Agreement.

#### **5.4. Biopiracy and the TRIPS Agreement<sup>179</sup>**

A few peripheral references have been made to the TRIPS Agreement in work. At this stage, a detailed discussion of some provisions of the TRIPS Agreement is appropriate, considering that some local communities have identified the Agreement as one of the mechanisms that perpetuate global

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<sup>179</sup> The *Agreement on Trade-Related Aspects of Intellectual Property Rights* (TRIPS) is Annex 1C to the Marrakesh Agreement Establishing the World Trade Organization (WTO), signed in Marrakesh, Morocco, April 15 1994. For the text of the TRIPS Agreement see [http://www.wto.org/english/tratop\\_e/trips\\_e/t\\_agm0\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm) at 18 October 2005.

biopiracy activities. The contentious provisions are in article 27 of TRIPS Agreement, specifically, article 27(3)(b).

For a start, article 27(1) of TRIPS provides, *inter alia*, that:

Subject to the provisions of paragraphs 2 and 3, patents shall be available for any inventions, whether products or processes, in all fields of technology, provided they are new, involve an inventive step and are capable of industrial application.

On its part, article 27(3) provides, in part, that members may exclude from patentability, (b) 'plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes.'

The first point to note is that article 27 deals with patentable 'inventions,' that must be new and potentially useful. Therefore patents are only granted to inventions that fulfil the essential criteria under article 27(1), and not to naturally occurring materials. The first part of article 27(3)(b) permits member states to exclude plants and animals from being patented, but not micro-organisms.<sup>180</sup> This obligates members to provide patent protection for microbiological products and processes.<sup>181</sup> The use of the phrase, 'members may also exclude from patentability,' implies a measure of discretion, thus, states are not bound to exclude plants and animals from being patented.<sup>182</sup> This is the point where local communities have serious reservations about the effect of TRIPS on their livelihood.

Among local communities, there is the view that the global tendency to commodify aspects of indigenous knowledge systems and resources will

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<sup>180</sup> See Debbie Collier, 'Access to and Control over Plant Genetic Resources for Food and Agriculture in Southern Africa: How Many Wrongs Before a Right?' (2006) 7 *Minnesota Journal of Science and Technology* 529, 542-544.

<sup>181</sup> See Michael Halewood, 'Indigenous and Local Communities n International Law: A Preface to Sui Generis Intellectual Property Protection' (1999) 44 *McGill Law Journal* 953, 962.

<sup>182</sup> See Daya Shanker, 'Argentina-US Mutually Agreed Solution, Economic Crisis in Argentina and the Failure of the WTO Dispute Settlement System' (2004) 35 *Journal of Law and Technology* 565, 595.

ensure the continued degradation of these resources, and enhance biopiracy.<sup>183</sup> Furthermore, there is also the view that this state of affairs contributes to erosion of the respect usually enjoyed by holders of indigenous knowledge, because the range of custodial resource-rights held by members of local communities are discarded when commercial considerations are in issue.<sup>184</sup> The general position of local communities and developing countries is that the coming of the TRIPS Agreement has complicated the biopiracy debate. This is because the TRIPS Agreement confers private exclusive rights,<sup>185</sup> and by implication, removes the subject matters covered by IPRs protection from the use of third parties, except with the permission of the right holder.<sup>186</sup> Therefore, in the event that any product(s) of indigenous resources are conferred with such exclusive rights, the result would be a continued dwindling of scope of possible uses of such resources by local communities.

Another major concern for local communities, as noted above, is that the TRIPS Agreement mandates patent protection to be granted over micro-organisms.<sup>187</sup> Having noted throughout this work that the indigenous worldview regards knowledge systems and the environment holistically, it is not difficult to find the source of concern if a part of their ecosystem is susceptible to private property rights. Added to this, article 27(3)(b) of TRIPS provides for the exclusion of 'essentially biological processes' for the production of plants or animals. The first point is that the phrase 'essentially biological processes' is imprecise and prone to several interpretations. The TRIPS Agreement does not offer any definition of the phrase. The 1998 *European Union Directive on the Legal Protection of Biotechnological Inventions*

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<sup>183</sup> See Daniel Conway-Jones, 'Safeguarding Hawaiian Traditional Knowledge and Cultural Heritage: Supporting the Right to Self-Determination and Preventing the Commodification of Culture' (2005) 48 *Howard Law Journal* 737, 755.

<sup>184</sup> *Ibid.*

<sup>185</sup> See article of the TRIPS Agreement.

<sup>186</sup> See for instance articles 16, 28 and 28 of the TRIPS Agreement.

<sup>187</sup> See Leanne M. Fecteau, 'The Ayahuasca Patent Revocation: Raising Questions about Current U.S. Patent Policy' (2001) 21 *Boston College Third World Law Journal* 6975-76.

(the Directive),<sup>188</sup> does not fair better in this regard. Under article 2.2 of the Directive, a process is 'essentially biological' if it 'consists entirely of natural phenomena such as crossing or selection.' The Directive's description of biological process is not clear. For instance, in this age of rapid technological advancements, when can a process be said to 'consist entirely' of natural phenomena, and who determines whether such a process was followed?

Finally, the fact that article 27(3)(b) of TRIPS permits states to exclude plants and animals from patent protection cannot be a source of assurance to local communities. The worry lies where any state(s) decides not to exclude such materials from being patented. The thought that plants and animals, the source of human subsistence for centuries, could suddenly be modified, then classified as 'new inventions' for patent protection is strange to indigenous ideas of life.<sup>189</sup> This explains indigenous resistance against the patenting of life forms, because of the possibility that some minor modifications to natural occurring organisms could be used to apply for patents, as having been 'invented.' This probably explains why the South African *Biodiversity Act 2004*, discussed above, stipulates that indigenous 'biological resources' include any plant and animal varieties or other organisms of indigenous species and their derivatives, whether wild, cultivated, or altered by the application of biotechnology.<sup>190</sup> This excludes the possibility of any farcical modifications of indigenous biological resources being treated as 'inventions'.

Flowing from the above discussions is the insistence by local communities and developing countries that 27(3)(b) of TRIPS, as its other provisions, undermines the CBD and permits the patenting of life forms.<sup>191</sup> In

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<sup>188</sup> Directive 98/44/EC, cited in Donna M. Gitter, 'Led Astray by the Moral Compass: Incorporating Morality into European Union Biotechnology Patent law' (2001) 19 *Berkeley Journal of International Law* 1, 1-2.

<sup>189</sup> See Keith Aoki, 'Weeds, Seeds, and Deeds: Recent Skirmishes in the Seeds War' (2003) 11 *Cardozo Journal of International and Comparative Law* 247, 286.

<sup>190</sup> See section 80(2) of the Act.

<sup>191</sup> See Johnson A. Ekpere, 'TRIPS, Biodiversity and Traditional Knowledge: OAU Model Law on Community Rights and Access to Genetic Resources' being Discussion Paper presented at

consequence, it has been submitted that article 27(3)(b) of TRIPS has effectively augmented the rate of biopiracy and caused local communities to further lose control over their resources.<sup>192</sup> The provision has also been blamed for wittingly or otherwise attempting to transform the American decision of *Diamond v. Chakrabarty*<sup>193</sup> into an international ruling, therefore forcing member-states of the WTO to accept the patentability of life forms.<sup>194</sup>

In delving into the patentability of life forms,<sup>195</sup> it is not in doubt that the Chakrabarty case dealt with a very contentious issue.<sup>196</sup> It has to be recalled that five U.S. Supreme Court Justices constituted the majority in the case while four Justices dissented.<sup>197</sup> While the majority held that the subject matter in issue was patentable and involved inventive steps, the minority held that the subject matter involved life forms and was therefore unpatentable. In writing for the dissent, Justice Brennan, noted:

The Court's decision does not follow the unavoidable implications of the statute. Rather, it extends the patent system to cover living

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the ICTSD Multi-Stakeholder Dialogue on Trade, Environment and Sustainable Development, Libreville, Gabon, July 13-14 2000, 7 at <<http://www.ictsd.org/dlogue/2000-07-13/ekpere.pdf>> at 5 November 2005.

<sup>192</sup> See David Conforto, 'Traditional and Modern-Day Biopiracy: Redefining the Biopiracy Debate' (2004) 19 *Journal of Environmental Law and Litigation* 357, 383-384. This is the position of most developing countries on this issue. See the Communication of the African Group and Bolivia, Colombia, Ecuador, Nicaragua and Peru to the WTO-TRIPS Council on the reform of article 27(3)(b) of TRIPs, in Michael Halewood, 'Indigenous and Local Knowledge in International Law: A Preface to Sui Generis Intellectual Property Protection' (1999) 34 *McGill Law Journal* 953, 988fn.

<sup>193</sup> The case *Diamond v. Chakrabarty* (1980) 447 U.S. 303, was where the United States Supreme Court allowed patents to be issued in respect of living organisms. (In this case it was technologically modified bacteria that was in issue.) On this issue, see generally, Oskar Liivak, 'The Forgotten Originality Requirement: A Constitutional Hurdle for Gene Patents' (2005) 87 *Journal of the Patents and Trademark Office Society* 267; Andrew F. Knight, 'A Potentially New IP: Storyline Patents' (2004) 86 *Journal of the Patents and Trademark Office Society* 859; Stephen R. Crespi, 'Patenting and Ethics: A Dubious Connection' (2003) 85 *Journal of the Patents and Trademark Office Society* 31.

<sup>194</sup> See Conforto above n 192, 383.

<sup>195</sup> See generally, Eileen Morin, 'Of Mice and Men: The Ethics of Patenting Animals' (1997) 5 *Health Law Journal* 147

<sup>196</sup> See generally Robert P. Merges, 'Intellectual Property in Higher Life Forms: The Patent System and Controversial Technologies' (1988) 47 *Maryland Law Review* 1051.

<sup>197</sup> Others were Justices White, Marshall and Powell.

materials even though Congress plainly has legislated in the belief that S. 101 does not encompass living organisms.<sup>198</sup>

In summing-up the Court's decisions, Professor Aoki submits that 'by focusing on human intervention as a crucial factor in determining patentability, the court opened the door to patents in life forms.'<sup>199</sup> This notwithstanding, some jurisdictions, especially the United States and countries in the European Union (EU), have accepted the Chakrabarty decision as valid. However, this has not stopped the debate regarding the extent to which exclusive property rights should be granted over certain subject matters, even if such debates are of no consequence in these countries.

The second part of article 27(3)(b) mandates states to provide protection for 'plant varieties either by patents or by an effective *sui generis* system or by any combination thereof.' Leaving aside the problem with patenting plant varieties, TRIPS provides no guidance as to what amounts to 'effective *sui generis* systems.'<sup>200</sup> Secondly, the question is: who determines such effectiveness and with what criteria? Even though TRIPS has left the structuring of the *sui generis* systems to the states, thereby permitting a wide range of choices, it has been argued that if developed countries adopt plant breeders' rights as their *sui generis* systems, then their ability to adopt divergent mechanisms would be curtailed.<sup>201</sup> Most developed countries have already adopted *sui generis* plant protection regimes in conformity with the *International Convention for the Protection of New Varieties of Plants* (UPOV Convention),<sup>202</sup> instead of any patent-based protection.<sup>203</sup>

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<sup>198</sup> See Chakrabarty above n 193, 321-322.

<sup>199</sup> See Aoki above n 189, 286.

<sup>200</sup> See J. Mugabe, P. Kamrei-Mbote and D. Mutta, 'Traditional Knowledge, Genetic Resources and Intellectual Property Protection: Towards a New International Regime' International Environmental Law Research Centre (IELRC) Working Paper 2001-5 at <<http://www.ielrc.org/content/w0105.pdf>> at 2 July 2006.

<sup>201</sup> Ibid.

<sup>202</sup> For the text of the UPOV Convention 1961, 1978 and 1991, see <<http://www.upov.int/en/publications/conventions/>> at August 18 2006.

<sup>203</sup> See Klaus Bosselmann, 'Plants and Politics: The International Legal Regime Concerning Biotechnology and Biodiversity' (1996) 7 *Colorado Journal of International Environmental Law*

Notwithstanding the discussions above, it has been submitted that TRIPS could be positively applied to indigenous knowledge systems. The argument here is that article 1(1) of TRIPS, on nature of obligations, provides a measure of flexibility in the implementation of its provisions.<sup>204</sup> For instance, it has been submitted that since article 1 permits states to implement more extensive IPRs protection than is contained in the Agreement, states could invoke this provision to enact legislation to protect indigenous knowledge systems.<sup>205</sup> The lack of any express mention of indigenous knowledge under TRIPS does not stop any state from relying on its provisions to enact such legislation.<sup>206</sup> This is a valid submission. However, it must be noted that any such domestic legislation to protect indigenous knowledge must comply with the provisos to articles 1 and (8)(1) of TRIPS, that such measures do not contravene the provisions of the Agreement.

## 5.5. Conclusion

This chapter has considered the contentious issues of biopiracy in the context of access to biodiversity resources and indigenous knowledge. The issue turns out to be a continuing tussle over resource rights in the North-South divide over the control of biodiversity and genetic resources. Another issue is that the complex nature of indigenous knowledge systems has also complicated the debate on access to biodiversity, as the scope of resource rights being claimed by indigenous communities continues to expand.

In the domestic arena, states have approached the issue of biopiracy in several different ways, while attempting to strike a balance between their duties to

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and Policy 111,124; see also Benjamin J. Bai, 'Protecting Plant Variety under TRIPS and NAFTA: Should Utility Patents be Available for Plants' (1997) 32 *Texas International Law Journal* 139.

<sup>204</sup> See Mugabe, Kamrei-Mbote and Mutta above n 202.

<sup>205</sup> Ibid.

<sup>206</sup> Ibid.

their citizens and their obligations under the CBD, especially. The discussions reveal that the debate about biopiracy is unlikely to be resolved for decades to come, because of the lack of consensus about its existence and its nature. Therefore, until a clearer conceptualization of concept is achieved, the debates will continue. But this should not be so. It is submitted that the clear-cut cases, that is, cases where the identified resources of local communities are to be accessed, should be addressed immediately, instead of lumping the whole issues on biopiracy together and delaying resolution of any of them. Another issue is the apparent lack of appreciation of the socio-cultural and spiritual sentiments of indigenous and local communities by persons outside these communities, especially in terms of inaccessible subject matters. This issue continues to pose problems for indigenous and non-indigenous communities particularly in the area of research dealing with access to human genetic materials.

The arrival of the TRIPS Agreement has added a fresh dimension to biopiracy debate. According to Professor Long, 'the internationalization of IPR protection, the globalization of trade, and the rapidly accelerating pace of technological development' have all contributed to place new pressures on debates over creativity and welfare.<sup>207</sup> This situation is exacerbated by the fact that local communities and entities in developing countries own an insignificant amount of global patents.<sup>208</sup> The major reason for this state of affairs is that few non-Western countries have developed the technological and structural base to be able to effectively compete in the global arena.<sup>209</sup> It is, therefore, imperative that any global IPRs instrument, especially the TRIPS Agreement, must address the seeming imbalance between the developing and

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<sup>207</sup> See Doris E. Long, 'First "Let's Kill all the Intellectual Property Lawyers": Musings on the Decline and Fall of the Intellectual Property Empire' (2001) 34 *John Marshall Law Review* 851, 894.

<sup>208</sup> See Keith Aoki, 'Neocolonialism, Anticommons Property, and Biopiracy in the (Not-So-Brave) New World Order of International Intellectual Property Protection' (1998) 6 *Indiana Journal of Global Legal Studies* 11, 57-58.

<sup>209</sup> To varying degrees, some of these countries include South Korea, Japan, Singapore, Malaysia, India, and South Africa.



developed states.<sup>210</sup> Furthermore, issue bordering on allegations that the TRIPS Agreement facilitates the patenting of life forms must be comprehensively addressed by state parties.<sup>211</sup>

The TRIPS Agreement does not incorporate the CBD by reference in its provisions even though it refers to other IPRs conventions.<sup>212</sup> Although, the CBD is not an IPRs Convention, article 16(5) states that patents could be part of the mechanisms for fulfilling its mandate, and therefore should be administered carefully to comply with its objectives. This could be seen an implicit alignment with the provisions of IPRs Conventions, including TRIPS. The TRIPS Agreement could have provided a reciprocal provision along the lines that IPRs protection should be applied in ways that are compatible with environmental and ecosystem sustainability.<sup>213</sup>

In line with the above observations, it is submitted that in the final analysis, allegations of biopiracy must be addressed in a way to effectively protect the interests of developing countries and local communities. According to Aoki, it would be ironical for Western countries, through the TRIPS and other IPRs instruments, to advocate strong IPR protection for their products and services, but ignore calls to protect 'invaluable biological and cultural resources flowing out of the South.'<sup>214</sup> Professor Coombe submits that the situation for local communities is further worsened by the internal

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<sup>210</sup> This is different from the initial differential standards granted to developing states to comply with TRIPS. There are other suggestions in Remigius Nwabueze, 'What Can Genomics and Health Biotechnology Do for Developing Countries?' (2005) 15 *Albany Law Journal of Science and Technology* 369.

<sup>211</sup> See Aoki above n 210, 58.

<sup>212</sup> See Frederick M. Abbot, 'Report: TRIPS in Seattle: The Not-So-Surprising Failure and the Future of the TRIPS Agenda' (2000) 18 *Berkeley Journal of International Law* 165, 171.

<sup>213</sup> The provisions of article 8 of the TRIPS are made of marginal utility by the provisos requiring any measures to comply with the TRIPS Agreement. Since TRIPS is a trade and IPRs Agreement it is usually complex to align its provisions with environmental and biodiversity sustainability. For instance, article XX of *WTO General Agreement on Tariffs and Trade 1947* (1993) makes exceptions for environmental emergency, but its application within countries has not been easy to come by. For the text of the GATT Agreement, see <[http://www.wto.org/english/tratop\\_e/gatt\\_e/gatt\\_e.htm](http://www.wto.org/english/tratop_e/gatt_e/gatt_e.htm)> at 18 August 2006.

<sup>214</sup> See Aoki above n 210, 49.

marginalization they suffer at the hands of the states, in terms of the distribution of any proceeds from the products of their biodiversity resources and related knowledge.<sup>215</sup>

In conclusion, persistent allegations of biopiracy made by indigenous and local communities raise the crucial issue as to how to protect their interests and knowledge systems in the global arena. There have been several scholarly suggestions on the modalities to accomplish this, the most prominent being the use of IPRs mechanisms.<sup>216</sup> The suitability or otherwise of these mechanisms for such purposes have been long debated, and there appear to be no consensus yet. Detailed discussions on these issues are undertaken in the next chapter.

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<sup>215</sup> See Rosemary Coombe, 'Intellectual Property, Human Rights and Sovereignty: New Dilemmas in International Law Posed by the Recognition of Indigenous Knowledge and the Conservation of Biodiversity' (1998) 6 *Indiana Journal Global Legal Studies* 59, 97.

<sup>216</sup> See generally Shubha Ghosh, 'Traditional Knowledge, TRIPS, and New Mercantilism' (Part 1) (2003) 85 *Journal of the Patent and Trademark Office Society* 828; See Shubha Ghosh, 'Traditional Knowledge, TRIPS, and New Mercantilism' (Part 11) (2003) 85 *Journal of the Patent and Trademark Office Society* 885; Paul Kuruk, 'Protecting Folklore Under Modern Intellectual Property Regimes: A Reappraisal of the Tensions Between Individual and Communal Rights in Africa and the United States' (1999) 48 *American University Law Review* 769.

## **Chapter Six**

# **Intellectual Property Rights and the Protection of Indigenous Knowledge Systems**

## Chapter Six

# Intellectual Property Rights and the Protection of Indigenous Knowledge Systems

### 6. Introduction

Without effective protection of the special interests that Indigenous peoples have in their ways of knowing and heritage, Indigenous cultures are threatened and endangered...Survival for Indigenous peoples is more than a question of physical existence; it is an issue of preserving indigenous knowledge systems...<sup>1</sup>

Two important insights emerged from the discussions in the preceding chapters: the first is the complexity of the issues that surround the processes of accessing and harnessing indigenous knowledge systems by non-indigenous entities. The second insight, flowing from the persistent allegations of biopiracy, relates to the necessity for an effective regime to protect diverse aspects of indigenous knowledge systems.<sup>2</sup> If well structured, this protective regime would minimize, if not eliminate, allegations of illegal appropriation of the resources of local communities.<sup>3</sup> Such a regime would ensure an ordered access process and streamline the areas of disagreement between resource owning communities and resource prospectors.

When approached from an indigenous perspective, the primary objectives for protecting their knowledge systems concern the need to safeguard and

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<sup>1</sup> See Marie Battiste and James Y. Henderson, *Protecting Indigenous Knowledge and Heritage: A Global Challenge* (2000) 12.

<sup>2</sup> See generally Manuel Ruiz, Isabel Lapena Susanna E. Clark, 'The Protection of Traditional Knowledge in Peru: A Comparative Perspective' (2004) 3 *Washington University Global Studies Law Review* 755, 758-766. See also David B. Vogt, 'Protecting Indigenous Knowledge in Latin America' (2001) 3 *Oregon Review of International Law* 12.

<sup>3</sup> See generally Greg Venbrux, 'When Two Worlds Collide: Ownership of Genetic Resources under the Convention on Biological Diversity and the Agreement of Trade Related Aspects of Intellectual Property Rights' (2005) 9 *Pittsburgh Journal of Technology Law and Policy* 1.

protect the means of livelihood of the world's indigenous populations.<sup>4</sup> Allied to these objectives is the quest by local communities to assume effective control over the nature and process of access to their knowledge systems and resources.<sup>5</sup> This has become imperative, since it is now generally acknowledged that, for centuries, these communities have relied on their biological and genetic resources for most of their needs, including food, fuel, shelter, and medicine.<sup>6</sup> The Trade and Development Board (the Board) of the United Nations Conference on Trade and Development (UNCTAD) shares this view on the value of indigenous knowledge systems and resources to local communities.<sup>7</sup> The Board notes that achieving long-term sustainable economic development by these communities may depend on their ability to harness their knowledge systems for commercial benefits, therefore, the need for protection.<sup>8</sup>

The latter opinion expressed by the Board is debateable and throws up the question on the import and implications of the term 'sustainable economic development' in relation to indigenous and non-indigenous communities. The term 'sustainable economic development' essentially indicates practices that 'simultaneously create economic vitality, environmental stewardship, and social equity.'<sup>9</sup> In general, this trend of development represents a pattern of social and structural economic transformations within a society that optimizes the present economic and societal benefits while preserving those

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<sup>4</sup> See Rosemary Coombe, 'The Recognition of Indigenous Peoples' Community and Traditional Knowledge in International Law' (2001) 14 *St. Thomas Law Review* 278, 278.

<sup>5</sup> See the discussions on access to biodiversity resources in chapter three of this work.

<sup>6</sup> See Coombe above n 4, 278.

<sup>7</sup> See 'The Sustainable Use of Biological Resources: Systems and National Experiences for the Protection of Traditional Knowledge, Innovations and Practices,' United Nations Conference on Trade and Development (UNCTAD), Trade and Development Board, Commission on Trade in Goods and Services, and Commodities, 5<sup>th</sup> Session Geneva, 19-23 February 2001 (TD/B/COM.1/38) 12 January 2001; at <<http://www.unctad.org/en/docs/c1d38.en.pdf>> at 10 January 2006.

<sup>8</sup> *Ibid.*

<sup>9</sup> See Adam S. Weinberg, 'Sustainable Economic Development in Rural America' (2000) 570 *Annals* 173, 174, citing Audirac Ivonne, *Rural Sustainable Development in America* (1997).

to be used by future generations.<sup>10</sup> However, with respect to local communities, it is doubtful whether the fact of the accrual of commercial benefits, without more, could justify efforts to harness their knowledge systems. As was noted in the last chapter, there are instances where particular genre of resources or aspects of indigenous knowledge systems are deemed inalienable in all circumstances, especially when commercial underpinnings are apparent.<sup>11</sup> It is therefore contestable to base the need for protection of indigenous knowledge systems or resources on the capacity to generate commercial benefits or engender development.

Notwithstanding any debate regarding the appropriate mechanism(s) to protect indigenous knowledge systems, there is scholarly consensus on the need for such protection.<sup>12</sup> Several international organizations have also indicated the necessity for appropriate protective mechanisms in this respect.<sup>13</sup> Despite this understanding, it appears that there are divergent views on what should be the nature, objectives, and underlying principles for such protective mechanisms. An important fact that has emerged is that the protection of indigenous knowledge systems are inextricably linked to the preservation of local communities themselves.<sup>14</sup> It has, therefore, been submitted that actions and policies that enhance the cultural identity and survival of local communities will also contribute to the preservation of their

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<sup>10</sup> See The World Commission on Environment and Development, *Our Common Future* (1987) in Gary D. Meyers and Simone C. Muller, 'The Ethical Implications, Political Ramifications and Practical Limitations of Adopting Sustainable Development as National and International Policy' (1996) 4 *Buffalo Environmental Law Journal* 1, 5.

<sup>11</sup> The clear instances are those of sacred knowledge, sacred objects and ceremonies that can only be viewed or performed by initiated community members. See Craig D. Jacoby and Charles Weiss, 'Recognizing Property Rights in Traditional Biocultural Contribution' (1997) 16 *Stanford Environmental Law Journal* 74, 91.

<sup>12</sup> See for instance Rebecca Tsosie, 'Reclaiming Native Stories: An Essay on Cultural Appropriation and Cultural Rights' (2002) 34 *Arizona State Law Journal* 299; Srividhya Ragavan, 'Protection of Traditional Knowledge' (2001) 2 *Minnesota Intellectual Property Review* 1; Robert K. Patterson and Dennis K. Karjala, 'Looking Beyond Intellectual Property in Resolving Protection of the Intangible Cultural Heritage of Indigenous Peoples' (2003) 11 *Cardozo Journal of International and Comparative Law* 633.

<sup>13</sup> The WIPO and UNCTAD are particularly very involved in this initiative.

<sup>14</sup> See the UNCTAD Trade and Development Board, above n 7, 3.

resources and knowledge systems.<sup>15</sup> This is especially true, since indigenous communities affirm the holistic relationship between the human and the non-human aspects of their natural worlds.<sup>16</sup> For instance, there is the widely acknowledged notion of the inseparability of humans from their lands and other resources.<sup>17</sup>

With the above observations in mind, it becomes clear that the task of formulating an effective protective mechanism(s) for indigenous knowledge systems will be labourious. According to Battiste and Henderson, formulating such mechanisms will involve three interconnected issues: first, there has to be an identification of the owners of such knowledge under the peoples' systems of laws.<sup>18</sup> Second, there is the need to respect the community's established customary procedures for learning and borrowing these knowledge systems.<sup>19</sup> Third, there is the need to compensate the relevant communities for the right to access, study, and utilize aspects of these knowledge systems.<sup>20</sup> Undoubtedly, these are valid stipulations. Since the traditional owners of these knowledge systems or resources could be individuals, family groups, clans or communities, it is necessary to determine proprietary rights in order to ascertain those with the rightful authority to negotiate access.<sup>21</sup> Recognition of customary procedures is equally important because indigenous communities have always had their own laws and procedures for protecting their knowledge systems, resources and heritage.<sup>22</sup> Although there can be similarities in these laws and procedures across several

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<sup>15</sup> Ibid.

<sup>16</sup> See for instance, Laurie A. Whitt et al, 'Belonging to the Land: Indigenous Knowledge Systems and the Natural World' (2001) 26 *Oklahoma City University Law Review* 701, 712.

<sup>17</sup> Ibid.

<sup>18</sup> See Battiste and Henderson above n 1, 70. There have been calls for the recognition and use of indigenous customary laws in other diverse areas. See Steven E. Hendrix, 'Guatemalan "Justice Centers": The Centerpiece for Advancing Transparency, Efficiency, Due Process, and Access to Justice' (2000) 15 *American University International Law Review* 813, 851; James S. Anaya, 'International Human Rights and Indigenous Peoples: The Move Toward a Multicultural State' (2004) 21 *Arizona Journal of International and Comparative Law* 13, 52.

<sup>19</sup> See Battiste and Henderson above n 1, 70

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> Ibid.

communities, the rules are sometimes complex and each community retains the liberty to interpret these rules to suit its peculiar circumstances.<sup>23</sup>

This chapter will address the central issue of protecting indigenous knowledge systems and resources within the framework of intellectual property rights (IPRs). It was noted in the chapter five of this work that concerns about biopiracy seem to have increased in recent years due to increased attention that indigenous knowledge systems have attracted globally.<sup>24</sup> This development has also made imperative an effective protective mechanism(s) to assuage the concerns of indigenous communities in this respect. However, considering the growing interconnectedness in world affairs, the implication of this development is that any protective mechanism(s) that would cater for the resource-interests of indigenous peoples must also accommodate the interests of non-indigenous entities. How this is to be achieved will depend largely on the nature of the protective mechanisms to be employed and their underlying principles.

The discussions in this chapter are divided into two major parts: the first part discusses broad issues on IPRs and the underlying principles, while the second part discusses some specific IPRs protective mechanisms in detail. Due to the composite nature of indigenous knowledge systems, comprising elements of art, music, medicines, folklore, craft, biodiversity and literature among others,<sup>25</sup> it would be difficult for any single protective mechanism to be employed to protect all aspects of these knowledge systems. For instance, it is doubtful whether any mechanism that could be used to protect indigenous folklore and cultural expressions could also be suitable for use with medicinal knowledge. This chapter will therefore explore the variously suggested options and explore their propriety or otherwise for this purpose(s). For a

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<sup>23</sup> Ibid.

<sup>24</sup> See the discussions in the introductory section of chapter five.

<sup>25</sup> See Srividhya Ragavan, 'Protection of Traditional Knowledge' (2001) 2 *Minnesota Intellectual Property Law Review* 1, 4.



start it is necessary to explore the conceptual basis for protecting indigenous knowledge systems.

## 6.1. The Basis for Protection

The starting point for the proposed discussions will be a determination of the basis for protecting indigenous knowledge systems. This is important, because, it appears that those calling for the protection of indigenous knowledge systems do so based on their perceptions of what should be the basis for such protection.<sup>26</sup> This situation is further complicated by the lack of any universally established criteria for protecting these knowledge systems.<sup>27</sup> For indigenous communities, protection for their knowledge systems is needed in order to preserve these systems and the identity, culture, arts, and in some cases, the languages of these communities.<sup>28</sup> One of the major consequences of this is that an effective mechanism will act as a check against the abuse of any aspect(s) of the knowledge systems, even by those rightfully authorized to access and use these systems and related resources.<sup>29</sup>

For non-indigenous entities, it appears that there are two schools of thought on the need to protect indigenous knowledge systems. The first school, presently in the minority, professes that indigenous knowledge systems have been and should be left in the public domain<sup>30</sup> to be accessed by all for the

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<sup>26</sup> See for instance Thomas Greaves, 'Tribal Rights' in Stephen Brush and Doreen Stabinsky (eds), *Valuing Local Knowledge: Indigenous People and Intellectual Property Rights* (1996) 25.

<sup>27</sup> See Sarah Büchner, 'Protection of Traditional and Indigenous Knowledge' at <<http://www.tralac.org/scripts/content.php?id=416>> at 15 January 2006.

<sup>28</sup> See Jeremy Firestone, Jonathan Lilley and Isabel Torres de Noronha, 'Cultural Diversity, Human Rights, and the Emergence of Indigenous Peoples in International and Comparative Environmental Law' (2005) 20 *American University International Law Review* 219, 227.

<sup>29</sup> See 'What is Indigenous Knowledge? Why Does it Need Preservation and Protection?' at <[http://www.ainc-inac.gc.ca/pr/ra/ind/ikn\\_e.html](http://www.ainc-inac.gc.ca/pr/ra/ind/ikn_e.html)> at 16 January 2006.

<sup>30</sup> For detailed discussions on the public domain, see Robert P. Merges, 'A New Dynamism in the Public Domain' (2005) *University of Chicago Law Review* 183; David Lange, 'Recognizing the Public Domain' (1981) 44 *Law and Contemporary Problems* 147; Samuel A. Oddi, 'The Tragicomedy of the Public Domain in Intellectual Property Law' (2002) *Hastings Communications and Entertainment Law Journal* 1; Yochai Benkler, 'Free as the Air to Common

benefit of all mankind as part of the global commons.<sup>31</sup> This school affirms that, because of the 'fluid' nature of aspects of indigenous knowledge systems, any attempt to limit public access would create avoidable problems, including the task of determining those entitled to claim the benefits of such protection.<sup>32</sup> There is, however, another subset of the public domain school which, while professing that indigenous knowledge systems exist in a 'sort of' public domain, maintains that the 'public' in this respect consists only of members within the concerned indigenous community.<sup>33</sup>

The latter view on the 'indigenous public domain' should be treated cautiously. This is because indigenous communities thrive on principles of collectivity in nurturing and exploiting their knowledge systems. To that extent, it shows a lack of appreciation of the functioning of indigenous societies to equate the nature of their knowledge systems to a form of the 'public domain.' On the contrary, the kinship-based structure and organization of indigenous communities, coupled with the predominant collective nature of resource ownership and use, indicate that, even at the community level, collective resource utilization and exchange could not be considered as 'public' in relation to indigenous or non-indigenous entities.

The second non-indigenous school acknowledges the need for protection of indigenous knowledge systems, provided, that any such protection does not stymie access for scientific, commercial, artistic or developmental purposes, and enhances the use of such knowledge to promote global economic

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Use: First Amendment Constraint on the Enclosure of the Public Domain' (1999) 74 *New York University Law Review* 354; Gary M. Anderson and Dolores T. Martin, 'The Public Domain and Nineteenth Century Transfer Policy' (1987) 6 *Cato Journal* 905; Louise E. Peffer, *The Closing of the Public Domain: Disposal and Reservation Policies 1900-1950* (1951) 8; Philip O. Foss, *Politics and Grass: The Administration of Grazing on the Public Domain* (1960) 8.

<sup>31</sup> See Jim Chen, 'Biodiversity and Biotechnology: A Misunderstood Relation' (2005) *Michigan State Law Review* 51, 83. See also Shubha Ghosh, 'The Traditional Terms of the Traditional Knowledge Debate' (2003) 23 *Northwestern Journal of International Law and Business* 589, 595. Also, see Paul Heald, 'The Rhetoric of Biopiracy' (2003) 11 *Cardozo Journal of International and Comparative Law* 519, 520 – 523.

<sup>32</sup> See Chen above n 31, 78.

<sup>33</sup> Ibid.

development.<sup>34</sup> In this respect, the basis for protecting indigenous knowledge would rest on the potential for their being isolated, propertized, commercialized, and be accessible to all under agreed terms.<sup>35</sup> Being essentially grounded in commerce, an added underlying understanding to this trend is the potential for further systematic research and development of some of the components of any such knowledge systems.<sup>36</sup> This is to enable interested parties to further replicate and disseminate the ideas underlying such systems in order to increase their utility and economic viability.<sup>37</sup> It must be said that local communities do not consider the possession of these attributes as key features of indigenous knowledge systems. The reason for this, as already noted, is that several aspects of their knowledge systems are regarded as inalienable and not amenable to commercial evaluations and exchanges.

The emphasis on the economic potentials of indigenous knowledge also poses another problem. Using such parameters as the basis for knowledge protection has led to allegations of attempts to delegitimize knowledge systems that are rooted in cultural traditions and practices of local communities.<sup>38</sup> According to Shiva, this emphasis on 'market' or 'economic principles' tends to be antagonistic to the 'natural economy' of local communities, by destroying their traditional systems of sustainable

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<sup>34</sup> This seems to be the attitude adopted by the WIPO and World Bank among others. See 'Indigenous Knowledge for Development: A Framework for Action' (Knowledge and Learning Centre, Africa Region, World Bank) 4<sup>th</sup> November 1998 at <<http://www.worldbank.org/afr/ik/ikrept.pdf>> at 18 January 2006.

<sup>35</sup> This is also the view being championed by the NGO, Indigenous Knowledge and Development Network (IKDN). For the activities of the IKDN see <<http://www.ik-pages.net/ik-network.html>> at 18 January 2006.

<sup>36</sup> See David Spratley, 'Protecting Aboriginal Knowledge, Culture and Art under Canadian Intellectual Property Laws' at <[http://www.davis.ca/publications/2005-06\\_protecting\\_aboriginal\\_ip.pdf](http://www.davis.ca/publications/2005-06_protecting_aboriginal_ip.pdf)> at 18 January 2006.

<sup>37</sup> Ibid.

<sup>38</sup> See Pat Howard, 'The Confrontation of Modern and Traditional Knowledge Systems in Development' (1994) 19 *Canadian Journal of Communications* at <<http://www.info.wlu.ca/~wwwpress/jrls/cjc/BackIssues/19.2/howard.html>> at 18 January 2006.

ecosystems regeneration.<sup>39</sup> Emphasizing the economic potentials of these knowledge systems tends to overlook or downplay the element of sustainability that would otherwise be pivotal to harnessing the systems and exploiting the resources.<sup>40</sup> This ultimately leads to a situation of overuse and under-replenishment of resources with the attendant consequence of distorting the general local ecosystem.

There are still other concerns, in particular, that if the commodification of indigenous knowledge systems were to be the basis for their protection, then such an endeavour would be injurious to indigenous interests. This could happen in two ways: first, the tilt towards protecting only 'formalized knowledge systems' that possess economic potentials seems wittingly or otherwise to channel the whole issue to the propriety or otherwise of creating and protecting formal property rights for those concerned. The creation of such property rights would require the protection of the products of such rights, maybe, in the form of IPRs. This leads to the second concern. It has been submitted that, since IPRs are primarily private property rights, the creation of such rights over indigenous knowledge systems, being predominantly collective resources, would threaten the foundations of indigenous community solidarity.<sup>41</sup> It is also believed that such rights would weaken the principles of collective identity and reciprocity in resource use and exchange upon which indigenous communities are structured.<sup>42</sup> This is because, commercial considerations tend to encourage the overall protection of specific individual as against diverse communal economic interests in order to enhance business efficiency. This contrasts with the practices among local communities where the goals of sustaining the traditional exchange economies and ensuring the subsistence capabilities of the diverse communities are deemed fundamental.

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<sup>39</sup> Ibid, citing Vandana Shiva, *Staying Alive: Women Ecology and Development* (1989).

<sup>40</sup> Ibid.

<sup>41</sup> Ibid.

<sup>42</sup> Ibid.

In another respect, it has been argued that the emphasis on the collective rights of indigenous and local communities over their knowledge systems are over-simplified and admits of several exceptions.<sup>43</sup> While it is true that many of these communities traditionally develop and transmit their knowledge systems from one generation to another, it is also true that, in some cases, individuals within these communities can distinguish themselves as informal 'creators or inventors', separate from the community, and are acknowledged as such.<sup>44</sup> There are also instances where some local communities confer various types of property rights over aspects of their knowledge systems on individuals, families, or lineages.<sup>45</sup> It is therefore pertinent, that in every situation, each case would have to be considered on its merit.

It is obvious that there are debateable issues on both sides of the divide. However, since issues surrounding IPRs are at the root of the present discussions, it is necessary to briefly examine the concept of 'intellectual property' in order to put the present discussions in proper perspectives.

## 6.2. The Concept of 'Intellectual Property'

Although there is no universally accepted definition(s) of the term 'intellectual property',<sup>46</sup> it has been defined as 'the legal rights over the outcomes of certain intellectual activity which gives the owner...certain exclusive rights, recognised by law, to control what is done with them.'<sup>47</sup> According to the World Intellectual Property Organization (WIPO), the term

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<sup>43</sup> See Davis Downes, 'How Intellectual Property Could be Used as a Tool to Protect Traditional Knowledge' (2000) 25 *Columbia Journal of Environmental Law* 253, 258.

<sup>44</sup> Ibid.

<sup>45</sup> Ibid.

<sup>46</sup> See the Australian Department of Industry, Technology and Regional Development, *Guidelines for Protecting Intellectual Property in International R & D Projects* (1993) 2.

<sup>47</sup> Ibid. Also see generally Rocque Reynolds and Natalie P. Stoianoff, *Intellectual Property: Text and Essential Cases* (2<sup>nd</sup> ed. 2005) 1-25; Jill Mckeough, *Blakeney and Mckeough Intellectual Property: Commentary and Materials* (2<sup>nd</sup> ed, 1992) 1-2.

'intellectual property' means the 'legal rights which results from intellectual activity in the industrial, scientific, literary and artistic fields.'<sup>48</sup> The WIPO notes further that states protect intellectual property for two major reasons: the first is in order to give legislative expression to the moral and economic rights of the creators while allowing for public access to such creations.<sup>49</sup> The second is to promote creativity and enhance the dissemination and application of the results of such creative activities for economic and social development.<sup>50</sup> These reasons are deemed to be sufficient to encourage states to implement effective protection of IPRs.

The above definitions tend to emphasize the elements of 'intellectual activity' and 'exclusive rights' as the key attributes of intellectual property. From indigenous perspectives, the first difficulty with this approach is the task of delineating what amounts to 'intellectual activity' for purposes of rights attribution. This is especially true when attempting to assign rights over collective knowledge systems of indigenous communities. The issue becomes more difficult since most of these communities possess their own locally-specific systems of jurisprudence with regard to the procedures for the acquisition and sharing of knowledge and attribution of attendant rights and responsibilities.<sup>51</sup> Although these traditional systems do not boast of any strict uniformity in form and content across the diverse local communities, they all deal with the fundamental issues of the nature and limits of the rights of the groups and individuals within the communities.<sup>52</sup> In this respect, even though the rights and entitlements relating to 'property' are usually well-defined by the cultures and norms of these communities, the elements of 'intellectual

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<sup>48</sup> See WIPO Intellectual Property Handbook: Policy, Law and Use at <<http://www.wipo.int/about-ip/en/iprm/pdf/ch1.pdf>> at 23 January 2006.

<sup>49</sup> Ibid.

<sup>50</sup> Ibid.

<sup>51</sup> See Daniel J. Gervais, 'Traditional Knowledge: A Challenge to the International Intellectual Property System' at <<http://www.cra-adc.ca/Toc514038464>> at 2 February 2006.

<sup>52</sup> Ibid. See generally Terri Janke and Robynne Quiggin, 'Indigenous Cultural and Intellectual Property and Customary Law' The Law Reform Commission of Western, Background Paper No. 12, (March 2005).

activity' and 'exclusive rights' that characterize the conventional intellectual property are not specifically emphasized.<sup>53</sup>

Flowing from the above is the fact that distinct proprietary systems do exist within indigenous and local communities and have been used for centuries.<sup>54</sup> This notwithstanding, any assumption that there is a homogenous system of property entitlements within these communities is wrong, and ignores the diversity of local communities.<sup>55</sup> In the final analysis, the crucial issue remains how to align the conventional IPRs to indigenous practices. A simpler way to present the issue might be to ask the question: what is the practicability or otherwise of using IPRs mechanisms to protect aspects of indigenous knowledge systems?

### 6.3. IPRs and Indigenous Knowledge Systems

In recent years, discussions on the appropriate mechanism(s) to protect indigenous knowledge systems have centred on the applicability or otherwise of IPRs mechanisms to this area.<sup>56</sup> There are divergent views with respect to

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<sup>53</sup> See Gervais above n 51. Also see generally Lauren E. Godshall, 'Making Space for Indigenous Intellectual Property Rights under the Current International Environmental Law' (2003) 15 *Georgetown International Environmental Law Review* 497.

<sup>54</sup> Ibid.

<sup>55</sup> Ibid. See generally Rachael Grad, 'Indigenous Rights and Intellectual Property Law: A Comparison of the United States and Australia' (2003) 13 *Duke Journal of Comparative and International Law* 203.

<sup>56</sup> See generally Paul Kuruk, 'Protecting Folklore Under Modern Intellectual Property Regimes: A Reappraisal of the Tension Between Individual and Communal Rights in Africa and the United States' (1999) 48 *American University Law Review* 769; Mark Hannig, 'An Examination of the Possibility to Secure Intellectual Property Rights for Plant Genetic Resources Developed by Indigenous Peoples of the NAFTA States: Domestic Legislation Under the International Convention for the Protection of New Plant Varieties' (1996) 13 *Arizona Journal of International and Comparative Law* 175; Bradford S. Simon, 'Intellectual Property and Traditional Knowledge: A Psychological Approach to Conflicting Claims of Creativity in International Law' (2005) 20 *Berkeley Technology Law Journal* 1613; Lara E. Ewens, 'Seed Wars: Biotechnology, Intellectual Property, and the Quest for High Yields' (2000) 23 *Boston College International and Comparative Law Review* 285; Emily Marden, 'The Neem Tree Patent: International Conflict Over the Commodification of Life' (1999) 22 *Boston College International and Comparative Law Review* 279; Rekha Ramani, 'Market Realities V. Indigenous Equities' (2001) 26 *Brooklyn Journal of International Law* 1147; Shubha Ghosh, 'Reflections on the Traditional Knowledge Debate' (2003) 11 *Cardozo Journal of International and Comparative*

using IPRs tools, including patents, copyrights, trademarks, trade secrets and geographical indicators.<sup>57</sup> The difficulty in resolving this issue is complicated by the lack of any existing international regime or regulatory instrument that has articulated a detailed pattern for protecting indigenous knowledge systems.<sup>58</sup> This is partly attributable to the divergent views held by different stakeholders involved with indigenous knowledge debate. For instance while most local communities view the protection of their knowledge systems as a prerequisite for the preservation of their culture, traditions, and ways of life, others outside this groups hold opine that while such protection is necessary, it is not a sufficient condition for the preservation and development of the knowledge system.<sup>59</sup> This latter view proposes that, in order to harness indigenous knowledge systems for trade and development, the important factors to consider include building national capacities within local communities, developing institutional and consultative mechanisms on protecting such knowledge systems, and commercializing aspects of the knowledge systems.<sup>60</sup>

The arguments in this debate are more complex than the brief overview above. However, with respect to the applicability of IPRs to indigenous knowledge systems, the arguments seem to have assumed two major perspectives that could, for the present purposes, be classified as 'traditional-

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*Law* 497; Denis S. Karjala, 'Looking Beyond Intellectual Property in Resolving Protection of the Intangible Cultural Heritage of Indigenous Peoples' (2003) 11 *Cardozo Journal of International and Comparative Law* 633; Gerard Bodeker, 'Traditional Medical Knowledge, Intellectual Property Rights, and Benefit Sharing' (2003) 11 *Cardozo Journal of International and Comparative Law* 785.

<sup>57</sup> See Naomi Roht-Arriaza, 'Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities' (1996) 17 *Michigan Journal of International Law* 919, 935.

<sup>58</sup> See 'Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices' United Nations Conference on Trade and Development (UNCTAD) Trade and Development Board, Commission on Trade in Goods and Services, and Commodities, Expert Meeting on Systems and National Experiences for Protecting Traditional Knowledge, Innovations and Practices, Geneva, 30 October-November 1, 2000; at <[http://r0.unctad.org/trade\\_env/tdbcom.htm](http://r0.unctad.org/trade_env/tdbcom.htm)> at 4th February 2006.

<sup>59</sup> *Ibid.*

<sup>60</sup> *Ibid.* Other factors include the exchange of experiences among the relevant states and communities and the formulation of *sui generis* protective systems for such purposes.



indigenous' and 'traditional-conventional' perspectives. In sum, the 'traditional-indigenous' perspective argues that IPRs mechanisms and indigenous knowledge systems are incompatible, since they are based on different foundational philosophies. On the other hand, the 'traditional-conventional' approach argues that, with appropriate blending and modifications, IPRs mechanisms could be used to protect indigenous knowledge systems.

### 6.3.1. The Traditional-Indigenous Perspective

The traditional-indigenous perspective is based on the understanding that any effective protection for indigenous knowledge systems must be premised on the totality of the traditional cultures, mores, values, and customs of communities.<sup>61</sup> Essentially, this perspective holds that conventional Western systems of IPRs cannot provide adequate protection to indigenous knowledge systems, because they are structured primarily to create individual property rights and to protect such rights and foster commercial objectives.<sup>62</sup> As a consequence, these systems are said to be conceptually and structurally limited in their ability to afford recognition and protection to indigenous interests, products, and cultural expressions.<sup>63</sup> The overall argument has been captured by Posey, that:

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<sup>61</sup> This position has been held mainly by environmental activists that see any type of conventional IPRs as a form of exploitation of indigenous communities. See, for instance, Vandana Shiva, *Biopiracy: The Plunder of Nature and Knowledge* (1997) 1-10.

<sup>62</sup> See Michael Davis, 'Indigenous Peoples and Intellectual Property Rights' Research Paper 20 (1996-97) Parliament of Australia Parliamentary Library, 2 at <http://www.aph.gov.au/library/pubs/RP/1996-97/97rp20.htm> at February 10 2006. Also see generally, Stephen A. Hansen and Justin W. VanFleet, *Traditional Knowledge and Intellectual Property: A Handbook on Issues and Options for Traditional Knowledge Holders in Protecting their Intellectual Property and Maintaining Biological Diversity* at <http://shr.aaas.org/tek/handbook/handbook.pdf> at 10 February 2006.

<sup>63</sup> Ibid. Davis submits further that there is also the contention that the Western system of IPRs is structured to serve the interests of the dominant, non-indigenous cultures in contrast to the rights and interests that are subsumed under indigenous system of creativity and cultural expressions.

Intellectual property rights provide indigenous peoples with few legal courses of action to assert ownership of knowledge because the law simply cannot accommodate complex non-Western system of ownership, tenure and access.<sup>64</sup>

Apart from the above observations, there are other concerns. The first is that apart from the general inadequacy of conventional IPR systems, their emphasis on individual rights and creativity is at odds with indigenous emphasis on collective creation and ownership of knowledge.<sup>65</sup> Another concern is IPR systems aid the violation of indigenous cultural precepts, by encouraging the commodification of several aspects of indigenous knowledge systems, without adequate benefits or attribution to the relevant communities.<sup>66</sup> An important point to note is that local communities view cases of non-attribution by any person(s) making use of their knowledge systems as exemplifying resource-theft and resource-misappropriation.

Finally, another general argument is that any attempt to import conventional IPRs mechanisms into the realm the indigenous knowledge systems without understanding the special relationship between indigenous peoples and their knowledge systems makes a mockery of the efforts by indigenous groups at self-identification.<sup>67</sup> Without understanding such special relationship, intellectual property itself would seem meaningless and of no value to indigenous communities.<sup>68</sup>

However, an important point to make is that there are limitations inherent in using only indigenous customary laws as mechanisms for knowledge

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<sup>64</sup> See Darrell Posey, 'Protecting Indigenous Rights to Diversity' (1996) 38 *Environment* 7.

<sup>65</sup> See David Downes, 'Using Intellectual Property as a Tool to Protect Traditional Knowledge: Recommendations for Next Steps,' Centre for International Environmental Law 1997, at <<http://www.ciel.org/Publications/UsingIPtoProtectTraditionalKnowledge.pdf>> at February 10 2006.

<sup>66</sup> Ibid.

<sup>67</sup> See Danielle Conway-Jones, 'Safeguarding Hawaiian Traditional Knowledge and Cultural Heritage: Supporting the Right to Self-determination and Preventing the Commodification of Culture' (2005) 48 *Howard Law Journal* 737, 752.

<sup>68</sup> Ibid.

protection. The first is that although these laws have been constitutionally recognized in some countries, there are multifarious variations from one community to another.<sup>69</sup> This raises a second issue of applicability and enforcement outside the concerned communities, because a community's customary laws are hardly enforceable outside its own confines. This will create obvious difficulty in the long run.

### 6.3.2. The Traditional-Conventional Perspective

The traditional-conventional perspective posits that there is the possibility for an adaptation and blending of IPRs regime to address the concerns of local communities, and still provide effective protection for indigenous knowledge systems.<sup>70</sup> According to Gervais, this is possible, because, 'with respect to tangible property', several indigenous communities do have property rights that can be transferred and used, like most other rights found in non-indigenous communities.<sup>71</sup> While acknowledging some potential difficulties in applying, for instance, the conventional copyright regime to protect an area like indigenous folklore,<sup>72</sup> Gervais further submits that the preponderance of communal rights within indigenous communities does not automatically constitute a major impediment to the application of the Western IPRs mechanisms thereto.<sup>73</sup> This submission is based on the contention that the application of IPRs to indigenous knowledge systems only requires the

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<sup>69</sup> Some countries in Latin America, Africa and Asia have undertaken this initiative. See Brendan Tobin, Customary law as the Basis for Prior Informed Consent of Local and Indigenous Communities' at

<[http://www.ias.unu.edu/binaries2/Tobin\\_PIC\\_Customary\\_Law.doc](http://www.ias.unu.edu/binaries2/Tobin_PIC_Customary_Law.doc)> at 15 February 2006.

<sup>70</sup> See Daniel J. Gervais, 'Spiritual but not Intellectual? The Protection of Sacred Intangible Traditional Knowledge' (2003) 11 *Cardozo Journal of International and Comparative Law* 467, 475.

<sup>71</sup> Ibid. An example is the suggestion on use of indigenous community patents for protective purposes. See Ikechi Mgbeoji, 'Patents and Traditional Knowledge on the Uses of Plants: Is a Communal Patent Regime Part of the Solution to the Scourge of Biopiracy' (2001) 9 *Indiana Journal of Legal Studies* 163.

<sup>72</sup> See Gervais above n 70, 475. Some other concerns raised include the difficulty of locating the original author(s) for particular works and cumulative nature of indigenous knowledge folklore overtime.

<sup>73</sup> Ibid.

recognition of communal ownership and not necessarily a precise identification of the author or creator of the subject matter in question.<sup>74</sup>

If the issues involved were as simple as recognizing communal rights and amending relevant legislation to secure such recognition, it would have been easy to resolve the sustained debates that characterize the present discourse. However, the issues are more complex, and there are two particularly noteworthy issues: the first is that despite the fact that some international instruments appear to have endorsed collective ownership rights over property, in reality the incidence of communal ownership is still alien to conventional IPRs regime.<sup>75</sup> The second, and more fundamental, is that the incidence of communal ownership should also import perpetuity in tenure for the right-holders. This is because, save where private rights apply, each indigenous community, being an organic entity, holds the rights to their knowledge systems 'in trust' and for onward transmission to future generations. This implies that even when alienation is permissible, the right holders do not usually have the authority to alienate the subject matters without the concurrence of the members of the concerned community.

From the preceding discussions, it becomes clear that it would be inadequate to simply formulate or adapt mechanisms that resemble IPRs with communal rights attributes and claim that they will adequately serve the communal interests of local communities. For any mechanism(s) to be effectively used for such purposes, it must be able to protect all aspects of indigenous interests, taking into account the inherent variations that exist from one local community to another. How this is to be achieved will depend on the extent to which such mechanism(s) seeks to address the concerns of local communities.

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<sup>74</sup> Ibid. In this respect, Gervais submits that the existence of an object that would have existed but for someone's creative efforts should be enough to grant, for instance, copyright protection.

<sup>75</sup> See generally Stephen D. Osborne, 'Protecting Tribal Stories: The Perils of Propertization' (2003/2004) 28 *American Indian Law Review* 203.

## 6.4. Applying Specific Protective Mechanisms

Having briefly considered the general arguments on either side of this debate, it is to note that several other specific issues remain. These issues arise when specific IPRs mechanisms, ranging from patent, copyright, trademarks, trade secrets, and geographical indicators are discussed in terms of their actual application to indigenous knowledge systems. Appreciating the intricate task of applying these mechanisms to indigenous knowledge requires their specific discussions. However, it is acknowledged that the mechanisms discussed below are by no means exhaustive.

### 6.4.1. Patents and Indigenous Knowledge Systems

There have been ongoing debates about the possibility of employing patents to protect relevant aspects of indigenous knowledge systems.<sup>76</sup> A patent is an exclusive right, usually granted by states to an inventor(s) to exploit the fruit of an invention(s) within the national jurisdiction for a specified number of years.<sup>77</sup> The patent mechanism constitutes a significant part of the international IPRs regime, as evidenced in references to it in the CBD, the WIPO activities, and the TRIPs Agreement (TRIPs).<sup>78</sup> Articles 27 to 34 of TRIPs specify the conditions for patent protection, and article 16(5) of the CBD states that the Parties recognize that 'patents and other intellectual property rights may have an influence on the implementation of this

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<sup>76</sup> See generally for example Ikechi Mgbeoji, 'Patents and Traditional Knowledge of the Uses of Plants: Is Communal Patent Regime Part of the Solution to the Scourge of Biopiracy?' (2001) 9 *Indiana Journal of Global Legal Studies* 163.

<sup>77</sup> See Chidi Oguamanam, 'The Convention on Biological Diversity and Intellectual Property Rights: The Challenge of Indigenous Knowledge' (2003) 7 *Southern Cross University Law Review* 89, 107; See generally Edward C. Walterscheid, 'The Nature of the Intellectual Property Clause: A Study in Historical Perspective (Part 1)' (2001) 83 *Journal of the Patent and Trademark Office Society* 763; Robert P. Merges and Richard R. Nelson, 'On the Complex Economics of Patent Scope' (1990) 90 *Columbia Law Review* 839; Robert Frost, *A Treatise on the Law and Practice Relating to Letters Patent for Inventions* (1891) 1-2; Charles J. Bannon, *Australian Patent Law* (1984) 1.

<sup>78</sup> See Oguamanam above n 77, 107.

Convention.' In the same respect the WIPO has devoted a good part of its activities to administering several international treaties that promote patent.<sup>79</sup> The presumed nexus between strong intellectual property regime and economic development has led to a situation where debates over patent law in many developing countries tend to revolve around the effect of patent protection on the stimulation of the domestic economies.<sup>80</sup> Such debates tend to neglect the effect that patents might have on other 'informal' systems, including indigenous knowledge systems.

Despite its acknowledged advantages in encouraging innovations and supporting economic development,<sup>81</sup> the patent regime has been criticized in terms of its applicability in the realm of indigenous knowledge systems.<sup>82</sup> In sum, the criticisms revolve mostly around the scope of patentable subject matter,<sup>83</sup> the conditions for patentability and the procedures for patent application. The first objection is that the requirements of novelty,<sup>84</sup> non-

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<sup>79</sup> Ibid. See also Gerald Mossinghoff, 'Patent Harmonization Through the United Nations: International Progress or Deadlock?' (2004) 86 *Journal of Patent and Trademark Office Society* 5, 6-7.

<sup>80</sup> See Shubha Ghosh, 'Globalization, Patents, and Traditional Knowledge' (2003) 17 *Columbia Journal of Asian Law* 73, 83-84.

<sup>81</sup> However, some scholars have expressed doubts on whether IPRs do have any positive effects on the economies of truly poor countries. See Daniel Gervais, 'Intellectual Property, Trade and Development: the State of Play' (2005) 74 *Fordham Law Review* 505, 534; Samuel Oddi, 'The International Patent System and Third World Development: Myth or Reality?' (1987) *Duke Law Journal* 831, 842-847. Also, see generally Arthur R. Miller and Michael H. Davis, *Intellectual Property, Patents, Trademarks and Copyright* (2nd ed. 1990) 1-25; Stefan Kirchanski, 'Protection of U.S. Patent Rights in Developing Countries: U.S. Efforts to Enforce Pharmaceutical Patents in Thailand' (1994) 16 *Loyola of Los Angeles International and Comparative Law Journal* 569, 571.

<sup>82</sup> See generally Vandana Shiva, *The Violence of the Green Revolution: Third World Agriculture, Ecology and Politics* (1991); Vandana Shiva, *Monocultures of the Mind: Perspectives on Biodiversity and Biotechnology* (1993). See the discussions on the problems that could arise in trying to treat indigenous peoples as 'joint inventors' in applying for patent rights, in Michael J. Huft, 'Indigenous Peoples and Drug Discovery Research: A Question of Intellectual Property Rights' (1995) 89 *Northwestern University Law Review* 1678, 1706-1718.

<sup>83</sup> The contentious area relating to 'patentability of life forms' has been discussed in the last chapter in relation to article 27(3)(b) of the TRIPs Agreement.

<sup>84</sup> This indicates that the authorities concerned must consider a discovery new before granting patent rights. For the complexity that could arise in determining novelty, see Raymond Van Dyke, 'E-Wars: Episode One: The Patent Menace' (2003) 7 *Computer Law Review and Technology Journal* 91, 95.

obviousness and industrial applicability<sup>85</sup> for any subject matter to be patentable are rooted in the dominant 'Euro-centric notion' of property rights and therefore render the patent system incapable of being blended with aspects of indigenous knowledge systems.<sup>86</sup> This is especially true when viewed from the perspective that indigenous knowledge systems are mostly collective in nature and issues about inventors, creators and incentives for such endeavours are not generally considered important.<sup>87</sup>

Other areas of concern to local communities are the forms and procedures for patent application, the limited terms of patent rights,<sup>88</sup> and the cost of enforcing patent rights.<sup>89</sup> The form and structure of patent applications that require specifications to be written in a technical way imply that only a few (if any) local communities are able to file such applications without requiring external specialist assistance.<sup>90</sup> It is also true that the mechanisms and costs of enforcing patent rights once they have been awarded are complicated and prohibitively expensive for most local communities.<sup>91</sup> There is also the issue of patentable subject matters. Apart from their obvious objection to patenting human genetic resources, indigenous communities are worried that virtually all aspects of nature are being tied-up with patents. For instance, the news

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<sup>85</sup> The explanatory notes to article 27(1) of the TRIPs Agreement advises that the terms 'inventive steps' and 'capable of industrial application' could be interpreted by members as 'non-obvious' and 'useful'.

<sup>86</sup> See James Odek, 'Bio-Piracy: Creating Proprietary Right in Plant Genetic Resources' (1994) 2 *Journal of Intellectual Property Law* 141, 155.

<sup>87</sup> Another point that is often raised in this respect is the non-economic nature of several aspects of indigenous knowledge systems, which makes the 'incentive argument' for patent protection not very applicable. For patents, however, creating the incentives will encourage people to invent. See Shanker Singham, 'TRIPs and the Interface Between Competition and Patent Protection in the Pharmaceutical Industry' (2000) 26 *Brooklyn Journal of International Law* 363, 366-367.

<sup>88</sup> In most cases, patent rights are granted exclusively for 20 years before the subject matter falls into the public domain. However, there are calls for a shift from the standard term for patent rights to a system of varying patent terms that will depend on the particular type of invention. See generally Eric E. Johnson, 'Calibrating Patent Lifetimes' (2006) 22 *Santa Clara Computer and High Technology Law Journal* 269.

<sup>89</sup> See Graham Dutfield, 'TRIPs-Related Aspects of Traditional Knowledge' (2001) 33 *Case Western Reserve Journal of International Law* 233, 254.

<sup>90</sup> *Ibid.*

<sup>91</sup> *Ibid.*

that multinational corporations AstraZeneca and Agracetus/Monsanto have recently patented venoms from spiders and scorpions for use in crops has caused revulsion in most indigenous communities around the world, as to the implications of such patents.<sup>92</sup>

The above discussions attempted to summarize the general criticisms of the patent system as a mechanism for protecting indigenous knowledge systems. One question remains to be considered though: under what circumstances can the patent regime be employed to effectively protect indigenous knowledge systems? The simple answer to this is that such a situation might be possible if the major essentials of indigenous knowledge systems are ingrained into the patent regime. This would require eliminating the areas within the patent regime that presently appear structurally irreconcilable with indigenous knowledge.

It has already been noted in this chapter that the patent regime evolved as an incentive for creativity and inventions. This is one of the reasons why the regime confers exclusive rights on patentees to reap the fruit of their inventions in economic terms. It also limits the terms to a specified period so that the general is able to benefit from the inventor's ingenuity in the public domain after the expiration of the patent.

In contrast, indigenous knowledge systems are not primarily weighed on economic indices, and are usually collectively held for the benefit of the holding community and succeeding generations. This ensures that the knowledge systems are effectively transferable across generations. It is therefore submitted that an application of the patent regime is possible only

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<sup>92</sup> For details on this and other types of unacceptable patents, see the Indigenous Peoples Council on Biocolonialism at [http://www.ipcb.org/publications/briefing\\_papers/files/didyouknow.html](http://www.ipcb.org/publications/briefing_papers/files/didyouknow.html) at 22 February 2006. Refer also to the discussions on article 27(3)(b) of TRIPS and the patenting of life forms in the last chapter.



when the essentials of indigenous knowledge systems are interposed on the regime. This could be achieved in the following ways: first, the patent requirements of 'novelty' and 'non-obviousness' are to be replaced by requirement that the community or persons claiming rights over particular knowledge must be 'holders' of such knowledge. In essence, the communities concerned must possess the specific expertise claimed in relation to the aspect(s) of knowledge systems in question. This presupposes that several groups, communities or individuals could have the same rights over the same subject matter. This resolves the concerns of scholars like Professor Gervais, who submits that 'to recognize a community as owner of a patent is not a particularly difficult conceptual jump. The problem lies in the identification of the inventor...' <sup>93</sup> It therefore appears that the problems of aligning the patent regime to indigenous knowledge would be greatly reduced if the notion of the 'inventor' is de-emphasized.

The proposition above also removes the need for limited protection normally granted under patent regime. This is important since an indigenous family or community is an organic entity and members infinitely succeed themselves over time, it is difficult to limit the term of protection when dealing with such collective interests. This is applicable to individual claimants within a community whose interests are determinable, if such interests pass on to their heirs.

With the above interpositions in mind, the patent requirement of 'industrial application' also needs to be replaced. In the realm of indigenous knowledge system, the preferred term would be 'in current practice.' The rationale for this is that, within the indigenous parlance, the term 'industrial application,' if interpreted as 'usefulness,' would be relative. The question is: for whom should the knowledge systems be useful? Most aspects of indigenous

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<sup>93</sup> See Daniel Gervais, 'Traditional Knowledge and Intellectual Property: A TRIPs Compliant Approach' (2005) *Michigan State Law Review* 137, 149.

knowledge systems, especially those relating to dreaming and other intangible folkloric traditions might be considered 'useless' to non-indigenous audiences. The suggested the term 'in current practice' could make protectable, knowledge systems that are still in use within the community concerned. This creates a presumption of 'usefulness' for such systems.

Whether a system structured as suggested could still be termed a 'patent regime' is debateable. However, these suggestions are specifically with respect to applying the patent regime to indigenous knowledge systems, and not meant to be an umbrella reform proposal of the patent system. It could be seen these suggestions do seem to undermine the very essence of the patent system. This illustrates that in all its ramifications, the patent system is unsuitable to be used to protect indigenous knowledge systems.

#### **6.4.2. The Copyright Mechanism**

The above discussions on the patent regime also apply in some respects to the application of the copyright regime to indigenous systems. As already noted in chapter two of this work, discussing copyright and indigenous knowledge systems is a labourious and complicated exercise. This is because the more international and regional instruments are brought in to regulate this area, the more confusing the scenario seems to become.

At the international level, the idea of trying to adapt copyright regime to protect aspects of indigenous knowledge systems dated back to the 1960's.<sup>94</sup> At the time, the term 'expressions of folklore' was the popular usage that identified the knowledge systems thought to be peculiar to indigenous and local communities.<sup>95</sup> In 1967, an addition to the *Berne Convention for the*

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<sup>94</sup> See Dutfield above n 89, 248.

<sup>95</sup> Ibid.

*Protection of Literary and Artistic Works* 1971<sup>96</sup> provided protection for 'unpublished works where the identity of the author is unknown,' and allows the presumed state of origin of the author(s) to represent such author(s) in securing protection for such works.<sup>97</sup> However, as will be discussed below, this addition is inadequate to protect the folkloric aspects of indigenous knowledge systems, even though this might have been the intention of the drafters.

In setting out this discussion, the first point to note is that the fundamental essence of the copyright regime is to protect the creativity of author(s) of original works or other derivative works that meet the protection criteria.<sup>98</sup> These are usually 'literary and artistic works' or other works of the same genre. Article 2(1) of the *Berne Convention* defines the term 'literary and artistic works' extensively to include, but not limited to 'every production in the literary, scientific and artistic domain...such as books, pamphlets and other writings; lectures, addresses, sermons and other works of the same nature; dramatic or dramatico-musical works.'<sup>99</sup> Article 2(2) of the Convention gives every state the discretion to include further work(s) in addition to the list of protectable subject matters.

In recent years there have been attempts to use the copyright mechanism to protect aspects indigenous knowledge systems, especially those within 'expressions of folklore.'<sup>100</sup> For instance, article 2 (xx) of the *Bangui Agreement*

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<sup>96</sup> For the text of the Berne Convention, see <<http://www.law.cornell.edu/treaties/berne/overview.html>> at 25 February 2006.

<sup>97</sup> See Dutfield above n 89, 249.

<sup>98</sup> See R.F. Whale and Jeremy Phillips, *Whale on Copyright* (1983) 1-5; F.E. Skone James and E.P. Skone James (eds), *Copinger and Skone James on Copyright* (10<sup>th</sup> ed. 1965) 3; William E. Patry, *Latman's The Copyright Law* (1986) 1-4.

<sup>99</sup> This definition goes on to include works of cinematography, architecture, sculpture, photography, applied arts, maps and sketches and so on. Article 68 of the Agreement defines 'folklore' in the same terms while adding other items like 'initiation rites and hunting and fishing techniques.

<sup>100</sup> The WIPO has done extensive studies in this area and has come up with the 'Revised Provisions for the Protection of Traditional Cultural Expressions/Expressions of Folklore.'

on the Creation of an African Intellectual Property Organization 1977 (as revised)<sup>101</sup> defines the term 'expressions of folklore' as:

The production of the characteristic elements of the traditional artistic heritage developed and perpetuated by a community or by individuals recognized as meeting the expectations of such community, and includes folktales, folk poetry, folk songs and instrumental music, folk dancing and entertainment as also the artistic expressions of rites and production of folk art...

With the above definition as a working guide, and proceeding on the presumption that expressions of folklore are the only aspects of indigenous knowledge to which copyright could be applied, the question then is: why are there still debates about the suitability of the copyright regime in this respect? It appears that, on the whole, debates are centred on the relationship between the copyright trilogy of 'originality', 'author' and 'fixation' and their relation to expressions of folklore.

It has been submitted that the concept of 'an author' is problematic for indigenous and local communities.<sup>102</sup> Within these communities, creative activities in the areas of folklore rely mainly on the customs and traditions of the people as a continuous chain of cultural practices in any particular area.<sup>103</sup> According to Farley, within indigenous and local communities, innovation in itself is simply not what is valued, but faithful reproduction of aspects of existing cultural heritage.<sup>104</sup>

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See <[http://www.wipo.int/tk/en/consultations/draft\\_provisions/doc/tce-provisions.doc](http://www.wipo.int/tk/en/consultations/draft_provisions/doc/tce-provisions.doc)> at 2 March 2006.

<sup>101</sup> See the *Banjul Agreement on the Creation of a African Intellectual Property Organization 1977* (as revised in 1999) at <[http://www.oapi.wipo.net/doc/en/bangui\\_agreement.pdf](http://www.oapi.wipo.net/doc/en/bangui_agreement.pdf)> at 2 March 2006.

<sup>102</sup> See Dutfield above n 89, 250.

<sup>103</sup> See Christine H. Farley, 'Protecting Folklore of Indigenous Peoples: Is Intellectual Property the Answer?' (1997) 30 *Connecticut Law Review* 1, 20-21.

<sup>104</sup> *Ibid.*

The requirement of 'authorship' dovetails into the 'originality' requirement. It is now an aphorism that 'the *sine qua non* of copyright is originality.'<sup>105</sup> In essence, any work that is to qualify for copyright protection must be original to the author, implying that the work was independently created by the author and that it exhibits a minimal degree of creativity.<sup>106</sup> The originality requirement has been seen as a problem in applying the copyright regime to folkloric expressions. For instance, back in 1981 a Commonwealth of Australia Government Committee on the Protection of Aboriginal Folklore concluded that the *Copyright Act* of 1968 'provides inappropriate and inadequate legal protection for Aboriginal folklore, due to its focus upon originality as a precondition to protection.'<sup>107</sup>

Another requirement for protection under copyright regime is that the work in question must be in a fixed state.<sup>108</sup> It has been submitted that, since most indigenous and local communities do not have fixed folkloric traditions, a great number of expression of folklore cannot qualify for protection.<sup>109</sup> Some aspects, like songs and dances, are handed down across generations through memorization and practice and not in any tangible form.<sup>110</sup> Therefore an insistence on fixation undermines the very essence of indigenous folkloric expressions, especially aspects that include folk tales, dreamtimes, proverbs, oral traditions and several intangible components.<sup>111</sup> It has been suggested that expressions of folklore could be best preserved in their state of non-fixation.<sup>112</sup> The reason for this is that if they are not fixed, and therefore do

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<sup>105</sup> <sup>105</sup> See Angela Riley, 'Recovering Collectivity: Group Right to Intellectual Property in Indigenous Knowledge' (2000) 18 *Cardozo Arts and Entertainment Law Journal* 175, 187; citing the U.S case of *Feist Publications, Inc. v. Rural Tel. Services Co.* (1991) 499 U.S. 340, 345.

<sup>106</sup> *Ibid* 187-188.

<sup>107</sup> See Fleur Johns, 'Portrait of the Artist as a White Man: The International Law of Human Rights and Aboriginal Culture' (1995) 16 *Australian Yearbook of International Law* 173, 180. This trend had earlier been referred to by French J. in *Yumbulul v. Reserve Bank of Australia & Others* (1991) 21 IPR 481, 490.

<sup>108</sup> See Farley above n 103, 27.

<sup>109</sup> See Dutfield above n 89, 252.

<sup>110</sup> See Farley above n 103, 28.

<sup>111</sup> *Ibid*.

<sup>112</sup> *Ibid* 29.

not qualify for copyright protection, then nobody could be granted any form of IPRs over them outside the local communities.<sup>113</sup> However, there is a downside to this suggestion. There is the possibility that in such non-fixated forms, folkloric expressions could be illicitly copied modified to satisfy the requirement for copyright protection and then be conferred with protection elsewhere.

Another concern for indigenous and local communities with the copyright regime has been the issue of duration of protection. In contemporary times, most copyright regimes confer protection for works for between 50 and 70 years following the death of the author(s).<sup>114</sup> Having noted the peculiarity of indigenous communities and their knowledge systems in relation to 'authorship,' it becomes clear that limitation of protection and intergenerational transmission of indigenous folklore are at loggerheads. This, then, presents a problem, because the copyright regime is aimed at providing temporal protection to the individual or joint authors/creators and not designed to provide perpetual protection for communal interests.

When placed alongside indigenous expressions of folklore the regime of copyright could be adapted in the following ways:

- eliminating the copyright requirements of 'originality' and 'authorship' as part of the criteria for protection. In line with the discussions above relating to patents, the requirements of 'originality' and authorship' could be replaced with 'holders,' or 'custodians' or 'practitioners' of the particular folkloric tradition;

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<sup>113</sup> Ibid.

<sup>114</sup> While Australian and the United States' copyright regime confer terms of 70 years after the death of the author, the term in Canada is 50 years. The *Sonny Bono Copyright Term Extension Act* of 1998 in the United States effected the extension from 50 to 70 years depending on the date the work was created. For the text of the Sonny Bono Act, see <<http://www.copyright.gov/legislation/s505.pdf#search=%22Sonny%20Bono%20Copyright%20Term%20Extension%20Act%20of%201998%20%22>> at 19 August 2006.

- eliminating the fixation requirement for aspects of folklore. This is required because despite the fact that some aspects of folklore are fixed, several aspects are not, and others yet are partially fixed and variable. Eliminating the fixation requirement will avoid any inconsistency that might arise from determining when expressions of folklore are 'fixed' and merit protection and when they are not;
- removing the fixed duration for copyright protection. As noted above in relation to patent rights the communal or group nature of indigenous folkloric rights makes the limited term inherent in copyright protection inappropriate. This is especially so considering the inter-generational manner through which indigenous folkloric traditions are usually transmitted and disseminated. Therefore, imposing a term limit will create inter-generational crises in terms of the right of access and usage of traditional folklore for succeeding generations.

If the above suggestions are effected within the copyright regime there is the probability that the regime could be used in some instances to protect expressions of folklore.<sup>115</sup> However, it has been noted that a copyright regime that grants perpetual protection on any subject seems to be unconstitutional in some countries like the U.S. where the U.S. Constitution expressly states that such protection must be for a 'limited term'.<sup>116</sup> This type of constitutional limitation should therefore be read into the suggestion above where applicable. As noted above with the discussions on patents, the present

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<sup>115</sup> However Farley has raises other problems relating to copyright and 'fair use exception' and insufficiency of damages under the copyright regime. The first issue is whether 'fair use' exception also permits outsiders to use sacred indigenous objects that would otherwise not be permitted. Another issue is whether sufficient damages could be awarded for a breach of copyright in indigenous folklore and how to assess such damages. See Farley above n 103, 37-38.

<sup>116</sup> See generally Mathew Rimmer, 'The Dead Poets Society: The Copyright Term and the Public Domain' at <[http://www.firstmonday.org/issues/issue8\\_6/rimmer/index.html](http://www.firstmonday.org/issues/issue8_6/rimmer/index.html)> at 10 March 2006.

suggestions go to show the inapplicability of the copyright regime to indigenous knowledge systems in all circumstances.

### **a. Revisiting the *Milpurrruru* and *Bulun Bulun* Decisions**

The Australian cases of *Milpurrruru v. Indofurn Pty. Ltd*<sup>117</sup> and *Bulun Bulun v. R & T. Textiles Pty. Ltd*<sup>118</sup> have been globally celebrated as a confirmation that aspects of indigenous folklore, especially artistic creations, are protectable under copyright regime.<sup>119</sup> In summary, both cases dealt with the unauthorized publications of artistic works that were considered sacred by the respective indigenous communities. In both cases the applicants based their arguments on alleged breach of the copyright in the works by the respondents.

In the *Bulun Bulun* decision, the respondents admitted liability and the issue of breach of copyright or its nature thereof did not proceed to trial. The issue that went to trial was whether *Bulun Bulun* (the applicant), who was assigned the legal right over the artistic works by his community, owed the community a fiduciary duty by the fact of the assigned right.<sup>120</sup> It was held that such a fiduciary relationship existed but the applicant did not breach the duty, having pursued legal remedies to redress the infringement.<sup>121</sup> The court held further that under Australian law, communal title could not be asserted as part of the general law,<sup>122</sup> concluding that 'the inadequacies of statutory

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<sup>117</sup> (1995) APIC 35;051.

<sup>118</sup> (1998) 157 ALR 193.

<sup>119</sup> See generally Amina Para Matlon, 'Safeguarding Native Sacred Art by Partnering Tribal Law and Equity: An Exploratory Case Study Applying the *Bulun Bulun* Equity to Navajo Sandpainting' (2004) 27 *Columbia Journal of Arts and Law* 211.

<sup>120</sup> See Von Doussa J. in the *Bulun Bulun* decision above n 101, 207-212.

<sup>121</sup> The court also rejected the argument by the community members that they have equitable rights in the copyright of *Bulun Bulun*.

<sup>122</sup> See the *Bulun Bulun* decision above n 101, 194.



remedies under the Copyright Act as a means of protecting communal ownership have been noted in earlier decision of this court.<sup>123</sup>

In the *Milpurrurru* decision, the issue of alleged violation of copyright in the works of the concerned indigenous artists went to trial and judgment was in favour of the applicants. Notwithstanding the fact that the respondents defended the suit they finally admitted the copyright ownership of the applicants and the court went ahead to deal with the issue of damages. In awarding damages in this case, Van Doussa J. introduced a new element in quantifying damages called 'cultural hurt.' This element was used to justify awarding further damages because of the 'anger and distress suffered by those around the copyright owner constitutes part of that person's injury and suffering.'<sup>124</sup>

## **b. Analysis of the Value of the Decisions**

The fact that the decisions in the two cases above have added new dimensions to the struggle for effective protection of indigenous folklore is not in doubt. However, the cases did not affirm that the copyright regime was a suitable mechanism to protect indigenous folklore. In fact, the cases held that copyright laws were inadequate for such purposes. The key decisions reached in the cases could be summarized as follows:

- that there existed a fiduciary relationship between indigenous communities and those to whom they assign aspects of their cultural heritage for artistic works;

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<sup>123</sup> The cases of *Yambulul v. Reserve Bank of Australia* (1991) 21 IPR 481 and *Milpurrurru v. Indofurn* (1994) 54 FCR 240 were cited to buttress the point.

<sup>124</sup> See the *Milpurrurru* decision above n 117, 39, 081.

- that the Australian copyright law does not recognize communal rights in artistic works as protectable rights;
- that 'cultural harm' could be presumed in circumstances where the breach of copyright offends those in cultural affinity to the copyright holder; and
- that indigenous communities that assign legal rights to artists to produce artistic works from their cultural heritage do not, *ipso facto*, retain equitable rights in the artists' copyright over the produced works.

Following from the above, it is important not to gloss over the comments by Von Doussa J. in the *Milpurrruru* case questioning whether works containing pre-existing images could satisfy the requirement of 'originality' to merit copyright protection.<sup>125</sup> This issue was raised by the court and left unanswered since it was not canvassed by any of the parties in either case. It is submitted that until this issue is fully canvassed and pronounced on by a court of law, any celebration of copyright regime as suitable in protecting aspects of indigenous knowledge systems seems premature.

Finally, assuming *arguendo*, that folkloric or artistic aspects of indigenous knowledge systems could be protected under copyright regime, then the question is: would it be advisable to do so? The answer should be in the negative. This is because, even if an indigenous community assigns legal rights to an individual member over some works of art and the 'authorship' and 'originality' requirements are satisfied, further problems might still arise. For instance, if the individual successfully claims copyright protection over such works with the consent of the community, then, the community concerned can only claim any right through the individual assignee.

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<sup>125</sup> Ibid 39-40.

Furthermore, and perhaps more importantly, such a community would have acceded to the term limit imposed by the copyright statute under which protection was sought. This term limit will ultimately affect the community's interests adversely. To conclude, it is submitted that the copyright regime is an inadequate mechanism to protect aspects of indigenous knowledge systems.

### 6.4.3. Geographical Indicators

Geographical Indicators have become one of the specific options frequently suggested as suitable for protecting relevant aspects of indigenous knowledge systems.<sup>126</sup> The term 'geographical indicators' connotes words or expressions that are used to describe and present products to indicate the country, region, or locality in which such products originate.<sup>127</sup> The term could also refer to words or expressions that suggest that particular quality, reputation or characteristic is attributable to a given product having originated in the country, region, or locality indicated by the words or expressions.<sup>128</sup> There are germane provisions on geographical indicators under articles 22 to 24 of the TRIPs Agreement.<sup>129</sup>

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<sup>126</sup> See Daniel Gervais, 'The Internationalization of Intellectual Property: New Challenges from the Very Old and the Very New' (2002) 12 *Fordham Intellectual Property, Media and Entertainment Law Journal* 929, 960.

<sup>127</sup> See section 4 of the *Australian Wine and Brandy Corporation Act 1980* (Cth) at <[http://www.austlii.edu.au/au/legis/cth/consol\\_act/awabca1980381/s4.html](http://www.austlii.edu.au/au/legis/cth/consol_act/awabca1980381/s4.html)> at 4 April 2006.

<sup>128</sup> Ibid. The *Australian Wine and Brandy Corporation Act* is specifically targeted at the wine and brandy industry.

<sup>129</sup> For instance, while article 22 made general provisions on geographical indicators, article 23 made further provisions specifically for wines and spirits. Furthermore, article 24 then made provisions for further negotiations in protecting wines and spirits. These provisions have been described as biased and confusing. See Kevin M. Murphy, 'Conflict, Confusion, and Bias Under TRIPs Articles 22-24' (2004) 19 *American University International Law Review* 1184.

In general, protection by way of geographical indicators is not designed to reward innovations like mechanisms such as patents and copyright.<sup>130</sup> Conversely, it is meant to reward producers of products who follow standardized production techniques that are traditionally linked to a region and products bearing the name of the region.<sup>131</sup> In essence it is that tradition of quality that is being protected and not the products *per se*.<sup>132</sup> In one respect, geographical indicators perform similar roles to conventional trademarks, being that both can identify the origin of a product.<sup>133</sup> However, unlike trademarks, geographical indicators do not confirm the nexus between the products and the manufacturers but rather affirm the geographical origin or locality of the products.<sup>134</sup> The value of this affirmation of origin is not simply for geographical identification of the products confirms the quality, reputation, or other characteristic of the products usually attributable to such geographical origin.<sup>135</sup> A few examples in this respect include the 'Tuscany' olive oil from the Tuscany region of Italy<sup>136</sup> and Basmati Rice from several regions in India and Pakistan.<sup>137</sup>

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<sup>130</sup> See Stephen Goldberg, 'Who Will Raise the White Flag? The Battle Between the United States and the European Union over the Protection of Geographical Indicators' (2001) 22 *University of Pennsylvania Journal of International Economic Law* 107.

<sup>131</sup> See Michael Halewood, 'Indigenous and Local Knowledge in International Law: A Preface to Sui Generis Intellectual Property Protection' (1999) 44 *McGill Law Journal* 953, 964.

<sup>132</sup> Ibid. See generally, Susan Farquhar, 'Geographical Indications, WIPO and TRIPs-Where to From Here?' (2004) 15 *Australian Intellectual Property Journal* 82.

<sup>133</sup> See Srividhya Ragavan, 'Protection of Traditional Knowledge' (2001) 2 *Minnesota Intellectual Property Review* 1, 19-20.

<sup>134</sup> Ibid.

<sup>135</sup> Ibid.

<sup>136</sup> See Janke and Quiggin above n 52, 44-45.

<sup>137</sup> This has not stopped the problems of foreign corporations trying to patent such geographically-peculiar materials. See generally, Michael Woods, 'Food of Thought: The Biopiracy of Jasmine and Basmati Rice' (2002) 13 *Albany Law Journal of Science and Technology* 123; Jinghua Zou, 'Rice and Cheese, Anyone: The Fight over TRIPs Geographical Indicators Continues' (2005) *Brooklyn Journal of International Law* 1141, 1168-1170; Olufunmilayo B. Arewa, 'TRIPs and Traditional Knowledge: Local Communities, Local Knowledge, and the Global Intellectual Property Frameworks' (2006) 10 *Marquette Intellectual Property Law Review* 155, 171-174; Tunisia L. Staten, 'Geographical Indications Protection under the TRIPs Agreement: Uniformity not Extension' (2005) 87 *Journal of the Patent and Trademark Office Society* 221.

Notwithstanding the above attributes, protection by way of geographical indicators have still has some problems that need to be highlighted. For a start, the history of regulating geographical indicators at the international level has been that of continued uncertainty.<sup>138</sup> Developments from the *Paris Convention for the Protection of Industrial Property* 1883,<sup>139</sup> the *Madrid Agreement for the Repression of False and Deceptive Indications of Source* 1891 (as variously revised),<sup>140</sup> the *Lisbon Agreement for the Protections of Appellations of Origin and their Registration* 1958,<sup>141</sup> to the TRIPs Agreement, demonstrate continuous struggle by the international community to define the scope and content of protection offered by geographical indicators. Therefore, even though TRIPs is considered to have made significant progress than the earlier instruments in articulating clearer criteria for protection, the uncertainties still remain.<sup>142</sup>

Even though a detailed discussion of all the concerns with TRIPs' provisions on geographical indicators cannot be undertaken in this section, two key concerns should be highlighted: the first is that the general protection accorded to geographical indicators by the TRIPs is inadequate and could lead to the abuse of registered indicators by third parties.<sup>143</sup> In essence, even though there are improvements under the TRIPs in this area not all the problems of the pre-TRIPs have been solved. The second concern is with

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<sup>138</sup> See Jose Cortes Martin, 'TRIPs Agreement: Towards a Better Protection for Geographical Indicators' (2004) 30 *Brooklyn Journal of International Law* 117,119-120.

<sup>139</sup> The major complaint against the Paris Convention is that it made general provisions and did not contain the conditions for protection of geographical indicators. See generally Albrecht Conrad, 'The Protection of Geographical Indicators in the TRIPs Agreement' (1996) 86 *Trademark Reporter* 11, 25-28. For the text of the Convention, see < [http://www.wipo.int/treaties/en/ip/paris/trtdocs\\_wo020.html#P71\\_4054](http://www.wipo.int/treaties/en/ip/paris/trtdocs_wo020.html#P71_4054)> at 8 April 2006.

<sup>140</sup> The Madrid Agreement improved on the Paris Convention and made specific provisions in relation to geographical indicators, although most members of the Paris Convention chose not to sign it due to what was considered 'some far-reaching' provisions. See Martin above n 137, 123-124. For the text of the Madrid Agreement, see <[http://www.wipo.int/treaties/en/ip/madrid/trtdocs\\_wo032.html](http://www.wipo.int/treaties/en/ip/madrid/trtdocs_wo032.html)> at 8 April 2006.

<sup>141</sup> The Lisbon Agreement was aimed at an effective protection of 'Appellation of Origin' as defined in article 2 of the Agreement. For the text of the Agreement, see <[http://www.wipo.int/lisbon/en/legal\\_texts/lisbon\\_agreement.htm#P29\\_1695](http://www.wipo.int/lisbon/en/legal_texts/lisbon_agreement.htm#P29_1695)> at 8 April 2006.

<sup>142</sup> See Martin above n 138, 120-121.

<sup>143</sup> *Ibid.*

respect to the dichotomy created under articles 22 to 24 of the TRIPs between the protection accorded to 'wines and spirits' and to other subject matters. These provisions should have ensured uniform protection for all subject matters but it appears that there is a bias in favour of wine and spirits as against the others.

Despite the general concerns about geographical indicators, there are suggestions that there is a considerable scope to use them to protect indigenous cultural materials, including artistic works and motifs.<sup>144</sup> One of the advantages that geographic indicators have in this respect is the tendency to echo a communal sense of common characteristics that products from a particular region possess.<sup>145</sup> In this way the producer(s) of particular products are identified to the consumers as a validation of the consumers' expectations about the quality of the products<sup>146</sup> and assurances of authenticity.<sup>147</sup>

Another major appeal of geographical indicators is their suitability to the collective traditions and decision-making processes of indigenous and local communities.<sup>148</sup> Furthermore, the rights to control the products protected by geographical indicators are not limited in time and can be maintained in perpetuity.<sup>149</sup> This is suitable to the group interests of local communities and could be maintained through several inter-generational transfers of knowledge and custodianship rights within the relevant community. This would also help to maintain the cultural identity of the communities involved while adding value to the products from their individual, communal or

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<sup>144</sup> See generally, Michael Woods, 'Foods for Thought: The Biopiracy of Jasmine and Basmati Rice' (2002) 13 *Albany Law Journal of Science and Technology* 123; David R. Downes, 'How Intellectual Property Could be a Tool to Protect Traditional Knowledge' (2000) 25 *Columbia Journal of Environmental Law* 253.

<sup>145</sup> See Ragavan above n 12, 19-20.

<sup>146</sup> See Muria Kruger, 'Harmonizing TRIPs and the CBD: A Proposal from India' (2001) 10 *Minnesota Journal of Global Trade* 169, 181.

<sup>147</sup> See Paul Heald, 'Trademarks and Geographical Indications: Exploring the Contours of the TRIPs Agreement' (1996) 29 *Vanderbilt Journal of Transnational Law* 635, 655.

<sup>148</sup> See Martin above n 138, 179 fn.

<sup>149</sup> *Ibid* 178.

regional ingenuity.<sup>150</sup> This factor seems to place geographical indicators above most other intellectual property mechanisms, where problems have been encountered with respect to group rights and limited terms of protection.

A final point is that geographical indicators have some other limitations: first, it appears that geographical indicators would not be applicable to intangible aspects of indigenous knowledge systems. This is because some of those aspects are usually entrenched in ceremonies, while others relate to dreamtime and related matters. Again, these intangible aspects are usually not meant for public consumption, and this keeps them outside the purview of geographical indicators. The second limitation is that geographical indicators cannot be applied to objects of a sacred or culturally-sensitive nature. Attempting to protect such sacred objects will in effect mean exposing them to the public, and that would be counter-productive in relation to their sacredness. Thirdly, it seems that geographical indicators are intended to apply to only commercially viable subject matters, therefore, applying them to non-commercial products might be too expensive to justify.

In all, while it appears that geographical indicators could play effective role in protecting aspects indigenous knowledge systems, much would depend on the modalities prescribed in local legislation to be adopted by each state. As usual, a seeming drawback here is that leaving the actual implementation to states' legislative discretion will create non-standardized protection from one state to another and defeat the underlying philosophy of having an international uniform standard.

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<sup>150</sup> See generally Lori E. Simon, 'Appellations of Origin: The Continuing Controversy' (1983) 5 *Northwestern Journal of International Law and Business* 132.

#### 6.4.4. The Use of Trademarks

A trademark has been defined as a 'sign used, or intended to be used, to distinguish goods or services dealt with or provided in the course of trade by a person from goods or services so dealt with or provided by any other person.'<sup>151</sup> Another definition sees a trademark as 'word, phrase, symbol or design or any combination thereof that identifies and distinguishes the source of the goods of one party from those of the others.'<sup>152</sup> The two basic principles for trademarks protection are: to ensure the distinctiveness of marks that identify particular goods or services and to avoid confusion as to the source of such product(s) to avoid misleading consumers of goods or services.<sup>153</sup> Under section 6 of the Australian *Trade Marks Act 1995* (Cth) (hereinafter ATMA), the term 'person' is said to include a body of persons, whether incorporated or not.<sup>154</sup>

The registered owner of a trademark has the exclusive rights to use and authorize other persons to use the mark in respect of his or her business and in accordance with the class of registration approved by the regulatory authority.<sup>155</sup> Once registered the mark becomes the personal property of the owner and can be licensed to a third party, assigned or transmitted as the

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<sup>151</sup> See section 17 of the Australian *Trade Marks Act 1995* at [http://www.austlii.edu.au/au/legis/cth/consol\\_act/tma1995121/s17.html](http://www.austlii.edu.au/au/legis/cth/consol_act/tma1995121/s17.html) at 14 March 2006.

<sup>152</sup> See the United States Patent and Trademark Office 'What are Patents, Trademarks, Servicemarks, or Copyright?' at <http://www.uspto.gov/web/offices/pac/doc/general/whatis.htm> at 14 March 2006.

<sup>153</sup> See Stephen A. Hansen and Justin W. VanFleet, 'Traditional Knowledge and Intellectual Property: A Handbook on Issues and Options for Traditional Knowledge Holders in Protecting their Intellectual Property and Maintaining their Biological Diversity' at <http://shr.aas.org/tek/handbook/handbook.pdf> at 14 March 2006.

<sup>154</sup> The situation obtainable in the United States has been extensively discussed in Nancy Kremers, 'Speaking with a Forked Tongue in the Global Debate on Traditional Knowledge and Genetic Resources: Are U.S. Intellectual Property Law and Policy Really Aimed at Meaningful Protection of Native American Cultures?' (2004) 15 *Fordham Intellectual Property, Media and Entertainment Law Journal* 1, 92-106.

<sup>155</sup> See section 20(1) of the ATMA 1995. See also Janke and Quiggin above n 52, 38. Compare with section 19 of Canada's *Trade Mark Act 1985*. For the text of the Act, see <http://lois.justice.gc.ca/en/t-13/> at 19 August 2006.



owner pleases. The rights conferred by registration are therefore enforceable as other equities conferred by private property.<sup>156</sup> This presupposes that registration also empowers the owner to prevent other person(s) from infringing on the registered mark and to take action to redress any such infringement.

In terms of protecting aspects of indigenous knowledge systems trademarks, protection seems to be a marginal but potentially effective alternative to mechanisms such as patents, copyrights and geographical indicators. It has been suggested that since individuals or groups are permitted to register trademarks, indigenous communities could register a mark through a trustee or unincorporated association for the benefit of the whole community.<sup>157</sup> This is a practical suggestion. However, registration by a trustee is not provided for under the ATMA and might pose some difficulties. For instance, there could be disagreements between the trustees and the communities on the extent of powers of the trustees as the registered owner of the trademark.<sup>158</sup> This is because section 22 of the ATMA confers absolute rights on the registered owner in dealing with the registered mark. Another noticeable drawback in registering indigenous signs as trademarks is that they must be put into active use, failing which the registration could be revoked.<sup>159</sup> Therefore an indigenous community is not permitted, for instance, to register a trademark solely to prevent others from doing so.<sup>160</sup>

Another off-shoot of trademarks, the collective trade marks, have been suggested as useful tools to protect relevant aspects of indigenous knowledge

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<sup>156</sup> See section 21 of the ATMA 1995.

<sup>157</sup> See Janke and Quiggin above n 52, 39.

<sup>158</sup> This type of situation arose in the *Milpururru* and *Bulun Bulun* cases considered above.

<sup>159</sup> What would amount to active use is not defined under the Act and it appears that each case would be dealt with on its merits.

<sup>160</sup> Under section 59 of the ATMA 'non-usage' is one of the grounds to oppose the registration of a Mark.

systems, especially those relating to arts and crafts.<sup>161</sup> These are marks that are used in the course of business by an association to 'distinguish those goods or services from goods or services so dealt with or provided by persons who are not members of the association.'<sup>162</sup> The peculiar element here is that such marks must be registered by an existing association,<sup>163</sup> and it is only the members of the association that are permitted to use same.<sup>164</sup> However, the rights are not assignable or transmissible to third parties outside the association in question.<sup>165</sup>

The use of collective marks by indigenous communities to protect their artistic goods or services is feasible<sup>166</sup> and it has two attractions: the first is that collective marks are flexible to administer and require no intricate rules of compliance. Secondly, in an action to remedy an infringement of collective marks it is permissible for all the members of the association to include the losses and damages suffered as a result of the infringement in claiming damages.<sup>167</sup>

It should be noted the provisions of the ATMA could be used to stop inappropriate use of indigenous knowledge systems, or aspects thereof. For instance, section 42 of the ATMA provides that a trademark may be denied registration or opposed by third parties if it contains scandalous materials or is contrary to law. It is therefore possible that indigenous communities could rely on this provision to block the registration of marks that intend to use

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<sup>161</sup> See Janke and Quiggin above n 52, 43. It is also noteworthy that no member of the association can prevent another member from using the registered mark.

<sup>162</sup> See section 162 of the ATMA.

<sup>163</sup> Under section 6 of the ATMA an 'association' does not include a body corporate.

<sup>164</sup> Ibid.

<sup>165</sup> See section 166 of the ATMA.

<sup>166</sup> A similar protection is conferred under the U.S. *Indian Arts and Crafts Act 1990* to protect the counterfeiting of works that are originally produced by the specified American indigenous groups. For the text of the Act and its Regulations, see <<http://www.doi.gov/iacb/act.html>> at 18 March 2006.

<sup>167</sup> See section 167 of the ATMA.

objects or marks that are sacred to the concerned communities.<sup>168</sup> A crucial point is that the ATMA does not clarify what would make an object to be considered 'scandalous' for the purposes of this section.<sup>169</sup> Furthermore, without express provisions to that effect, it is unclear whether indigenous customary law qualifies as 'law', when determining objects that are 'contrary to law' under the ATMA.

Notwithstanding the possible attractions of trademarks in protecting aspects of indigenous knowledge systems, there are some criticisms against using the mechanism as such. The major criticism is that trademarks, like most IPRs mechanisms, act primarily as market mechanisms, that is, tools that are intended to reward innovations<sup>170</sup> and safeguard objects that have the potential to secure economic benefits.<sup>171</sup> In this respect, even though some indigenous groups have used trademarks to market some of their products, it is clear that the mechanism would not be suitable to protect aspects of indigenous knowledge systems that do not have economic value.<sup>172</sup>

#### 6.4.5. Breach of Confidence Laws

Perhaps the most fundamental thing to say is that the law relating to secrets and 'confidential information' cannot be put in one compartment

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<sup>168</sup> See Janke and Quiggin above n 52, 40. The authors also revealed that the situation in New Zealand seems more advanced in this area. There, changes to the *Trade Marks Act 1953* (NZ) established the office of the Maori Trade Mark Advisory Committee (MTAC), which advises on the registerability or otherwise of marks that contain Maori signs.

<sup>169</sup> Section 9 of Canada's *Trade Marks Act 1985* enumerated several instances where a Trade Mark should not be registered and also included where the marks include 'scandalous, obscene or immoral words or device.'

<sup>170</sup> See David Downes, 'How Intellectual Property Could be a Tool to Protect Traditional Knowledge' (2000) 25 *Columbia Journal of Environmental Law* 253, 259-260.

<sup>171</sup> Darrell A. Posey and Graham Dutfield, *Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities* (1996) 112.

<sup>172</sup> *Ibid.*

at all, and that it is both wrong and misleading to regard such a law as a category in itself for any purposes whatsoever.<sup>173</sup>

Breach of confidence and trade secret laws have been suggested as possible mechanisms that could be used to protect aspects of indigenous knowledge systems.<sup>174</sup> These mechanisms are especially relevant in relation to indigenous subject matters that are sacred in nature, or, which the communities concerned intend not to disclose to outsiders.

The breach of confidence mechanism is an area that was developed to protect confidential information or trade secrets from unauthorized use or dissemination.<sup>175</sup> In relation to the information that could be protected, the general principles applicable breach of confidence actions were summarized in *Coco v. AN Clark (Engineers) Ltd.*,<sup>176</sup> as follows:

- the information must have the necessary quality of confidence about it;<sup>177</sup>
- the information must have been imparted in circumstances importing an obligation of confidence;
- there must have been an unauthorized use of that information to the detriment of the party that communicated it.<sup>178</sup>

There have been some other supplementary requirements added since the *Coco* decision: that the imposition of a confidential obligation is reasonable;

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<sup>173</sup> See Robert Dean, *The Law of Trade Secrets and Personal Secrets* (2002) 1, citing R.K. Fullager, Confidential Information and Trade Secrets, Intellectual and Industrial Property Lectures, (Monash University, 1972) 5.

<sup>174</sup> See Janke and Quiggin above n 52, 49.

<sup>175</sup> Ibid.

<sup>176</sup> (1969) RPC 49, 47 in Dean above n 173, 66-67.

<sup>177</sup> Ibid.

<sup>178</sup> Ibid.

and that the information can be identified with specificity.<sup>179</sup> These factors would have to co-exist for a successful assertion of an obligation of confidence.

In terms of its application to protect indigenous secret information, the breach of confidence approach has been of limited utility. The fact that there have been so few cases brought by indigenous communities that sought to rely on this approach seems to be a reflection of this sentiment.<sup>180</sup> Why has this been the case, and why do indigenous communities feel reluctant to pursue actions based on breach of confidential information? The first reason is that most local communities do not have the financial capability to pursue these actions in court. Instead, when breaches occur, the concerned local communities, where possible, deal with issues in accordance with their customs and traditions. This problem arises for all other causes of action and not specific to breach of confidence cases. However, there are other problems associated with breach of confidence.

Apart from the issue of financial incapacity, the second problem with breach of confidence laws is that the remedies granted do not seem to go far enough to address the fundamental issues involved. A clear example is the case of *Foster v. Mountford*,<sup>181</sup> which is usually cited to support this approach in protecting indigenous secrets. In this case, an indigenous community in the Northern Territory of Australia had divulged culturally-sensitive information to a researcher on the condition of confidentiality. The researcher later wrote a book and published the information without the approval of the community. The remedy granted to the community was an injunction to restrain the publication of the secret information in the Northern Territory. No damages

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<sup>179</sup> See Dean above n 173, 66; citing *Dunford and Elliot v. Johnson and Firth Brown Ltd* (1978) FSR 143, and *Corrs Pavey Whiting & Byrne v. Collector of Customs (Vic)* (1987) 14 FCR 434, 443.

<sup>180</sup> See Peter Hennessy, 'Common Law Protection of Private or Secret Matters' (1985) *Aboriginal Law Bulletin* 86 at

<<http://www.austlii.edu.au/au/journals/AboriginalLB/1985/86.html>> at 2 April 2006.

<sup>181</sup> (1976) 14 ALR 71.

were awarded for the breach of duty, despite the fact that the book containing the materials, *Nomads of the Australian Desert*, had been widely circulated in Australia and globally.<sup>182</sup> This exposes one of the limitations of the breach of confidence mechanism to protect indigenous confidential information, as the injunction granted did not remedy the damages already done to the community.

Finally, another way to look at the issue here is to consider what would happen if the confidential information is given to a foreigner by an indigenous community and the person misuses the information or exceeds the agreed terms for receiving same. It is trite that only few indigenous communities globally have the requisite resources to pursue litigation in another country to remedy such breach. Therefore, the breach of confidence mechanism and other derivative options are of limited application in the present context.<sup>183</sup>

#### 6.4.6. The Use of Trade Secrets

The old adage that 'knowledge is power' is coming to have its commercial counterpart in the more sordid but equally valid aphorism 'information is money...Information has quite literally become capital.'<sup>184</sup>

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<sup>182</sup> In a sister case that arose after the death of Dr. Mountford, *Pitjantjatjara Council and Nganingu v Lowe and Bender* (1982) *Aboriginal Law Bulletin* 30, at <<http://www.austlii.edu.au/au/journals/AboriginalLB/1982/30.html>> at 3 April 2006, the Pitjantjatjara Council opposed the sale of research materials belonging to Dr. Mountford that included slides with secret Aboriginal ceremonies. The Supreme Court of Victoria granted an order for the slides to be delivered to the Court for the Council to select and remove the slides containing sacred materials. No damages were sought or awarded.

<sup>183</sup> See generally Daniel Gervais, 'The Internationalization of Intellectual Property: New Challenges from the Very Old and the Very New' (2002) 12 *Fordham Intellectual Property, Media and Entertainment Law Journal* 929, 966-968. Other options have also been suggested in Graham Dutfield, 'TRIPS-Related Aspects of Traditional Knowledge' (2001) 33 *Case Western Reserve Journal of International Law* 233, 259

<sup>184</sup> See Dean above n 173, 7. Also see generally Amedee E. Turner, *The Law of Trade Secrets* (1962) 1-15.

Trade secrets are derived from breach of confidence laws.<sup>185</sup> In recent years, trade secrets have become one of the options posited for the protection of aspects of indigenous knowledge systems.<sup>186</sup> Trade secrets law has particularly been recommended for protecting folklore 'that has special spiritual significance and has been revealed only to properly initiated clan members.'<sup>187</sup> In simple terms trade secrets describe a category of information, confidential in nature, to which the principles that regulate the protection of secret information have been applied.<sup>188</sup> The U.S. *Uniform Trade Secrets Act* of 1985 defines trade secrets as:

information, including a formula, pattern, compilation, program device, method, technique, or process, that: (i) derives independent economic value, actual or potential, from no being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.<sup>189</sup>

This definition is on all fours with the provisions of article 39 of the TRIPs Agreement, which provides for the protection of information that is (i) secret (ii) has commercial value because of such secrecy, and (iii) the holder of such information must have taken reasonable secrets to keep it secret. These requirements are usually construed conjunctively and therefore must co-exist in every case for the information to be protectable as trade secrets. The emphasis on the commercial value of such information seems to justify the prefix 'trade' in the trade secrets mechanism. In addition to protection

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<sup>185</sup> See generally W.R. McComas, Mark R. Davison and David M. Gonski, *The Protection of Trade Secrets: A General Guide* (1981) 1-4.

<sup>186</sup> See generally Paul Kuruk, 'Protecting Folklore Under Modern Intellectual Property Law Regimes: A Reappraisal of the Tension Between Individual and Communal Rights in Africa and the United States' (1999) 48 *American University Law Journal* 769.

<sup>187</sup> *Ibid.*

<sup>188</sup> See Dean above n 173, 15.

<sup>189</sup> See the *Uniform Trade Secrets Act* 1985 (as amended) at <<http://nsi.org/Library/Espionage/usta.htm>> at 20 March 2006. Also see generally Turner above n 184, 3.

afforded to trade secrets through actions for breach of confidence, they can also be protected by contract.<sup>190</sup>

In practical application to aspects of indigenous knowledge systems, the first obstacle for trade secret mechanism appears to be the emphasis on the economic value of protectable information.<sup>191</sup> While several constituents of indigenous knowledge systems have economic value, there are several other components that have sentimental or religious value, while others are culturally sacred to the concerned communities.<sup>192</sup> This suggests that these culturally valuable subject matters are not protectable as trade secrets even if they are secret in nature, since they cannot be considered 'economically valuable.' For other aspects of indigenous knowledge systems, it is difficult to determine their economic value. It could be argued that where the community concerned has sold or licensed particular materials, then such materials have economic value. A case usually cited as an example for this is *Bridge Communications Inc. v. Vien*,<sup>193</sup> where religious texts that were sold by a church to raise funds were held to be trade secrets because they had economic value.

The point to note is that applying the ratio of the above decision to indigenous knowledge systems may produce erroneous results. Most indigenous religious materials or texts are considered sacred by the relevant communities and therefore they are not available to be bought or sold under any circumstances. This does not mean that such materials possess no economic value, and relying on the economic considerations alone to

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<sup>190</sup> See Robert G. Bone, 'A New Look at Trade Secret Law: Doctrine in Search of Justification' (1998) 86 *California Law Review* 241, 260; Steven Wilf, 'Trade Secrets, Property, and Social Relations' (2002) 34 *Connecticut Law Review* 787.

<sup>191</sup> See article 39(2) of the TRIPS Agreement.

<sup>192</sup> See generally Daniel J. Gervais, 'Spiritual But Not Intellectual?: The Protection of Sacred Intangible Traditional Knowledge' (2003) 11 *Cardozo Journal of International and Comparative Law* 467; David J. Stephenson Jr., 'The Nexus Between Intellectual Property Piracy, International Law, The Internet, and Cultural Values' (2001) 14 *St. Thomas Law Review* 315.

<sup>193</sup> (1993) 827 F. Supp. 629 (S.D. Cal.)



determine value will not serve the purposes of indigenous and local communities.

In terms of preserving the secret information from outside encroachment, the major requirement for trade secrets protection is for the holder(s) to take reasonable steps to protect the information.<sup>194</sup> But who determines the reasonability of the steps taken to protect such information? Is it the local community concerned, third parties, or the courts in each case? The fact that it is likely a duty for the courts is a disincentive for local communities, who do not have the finances to pursue such claims. This is added to the fact that trade secrets protection places so much responsibility on holders of information to secure the information from 'predators' and virtually no obligation on outsiders to desist from encroaching on such secrets.<sup>195</sup> For instance, it is the rule that a person who is alleged to have encroached on a trade secret must be proved to have done so inappropriately for liability to arise.<sup>196</sup> This is also a difficult task for local communities for the reason proffered above. To deal with this situation, it is submitted that any access that is without the express permission of these communities must be regarded as inappropriate. Otherwise, indigenous communities will have the difficult task proving the necessary state of mind in court.<sup>197</sup>

As already suggested, the better option would be to require that those that acquire secret information from indigenous communities must establish that such information was received with the informed consent of the community concerned. This would obviate the situation that arose in *Foster v.*

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<sup>194</sup> See Turner above n 183, 14.

<sup>195</sup> In some cases however equity will intervene to prevent a third party that obtained secret information irregularly from using same. See Dean above n 173, 27-28.

<sup>196</sup> See Farley above n 103, 53. See generally Robert K. Paterson and Dennis S. Karjala, 'Looking Beyond Intellectual Property in Resolving Protection of the Intangible Cultural Property of Indigenous Peoples' (2003) 11 *Cardozo Journal of International and Comparative Law* 633.

<sup>197</sup> See Paul Kuruk, 'Protecting Folklore Under Modern Intellectual Property Regimes: A Reappraisal of the Tensions Between Individual and Communal Rights in Africa and the United States' (1999) 48 *American University Law Review* 769, 832.

*Mountford*,<sup>198</sup> where sacred information that were given in confidence to a researcher was published in a book and widely distributed without the consent of the community concerned. Even though the community got an injunction to stop the circulation of the book within the territory, the fact remains that the information had already been made widely available in other places.

When everything is considered it should be noted that the greatest worry about trade secrets protection for indigenous knowledge systems is the effect of such protection on indigenous customary practices. Since indigenous knowledge systems are used for the daily subsistence of the concerned local communities they have in effect become 'open secrets' within these communities. Despite the fact the a specialized knowledge system, for instance medicinal knowledge, could be known only by a few members of the community or even a family, most aspects of the broader knowledge systems are known by majority of the community members. This makes it even harder for such widely held information to be protected from outsiders.

#### **6.4.7. Community/Indigenous Knowledge Registry (Databases)**

The use of a register for indigenous knowledge systems has been touted as an alternative option for their protection.<sup>199</sup> In recent years this suggestion has gathered momentum and is being implemented in a number of fora. For instance, the registry system has been established in India by the Society for Research and Initiatives for Sustainable Technologies and Institutions

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<sup>198</sup> (1976) 14 ALR 71.

<sup>199</sup> See Thomas Krumenacher, 'Protection for Indigenous Peoples and their Traditional Knowledge: Would a Registry System Reduce the Misappropriation of Traditional Knowledge?' (2004) 8 *Marquette Intellectual Property Law Review* 143, 155; William Lesser, *Sustainable Use of Genetic Resources Under the Convention on Biological Diversity: Exploring Access and Benefit Sharing Issues* (1997) 127-130.

(SRISTI) in conjunction with some local communities. The United States Patent and Trademark Office has also established a similar system for Native American tribal insignia.<sup>200</sup> The Indian government has established the Traditional Knowledge Digital Library (TKDL) to record the knowledge of Ayurveda, a peculiar Indian traditional system of medicine.<sup>201</sup> On its part, China has established a knowledge database of Chinese Medicine that contains detailed recording of traditional acupuncture, herbal medicine, animal-derived drugs, and mineral drugs in a format that can be searched by patent examiners.<sup>202</sup> Finally, the World Bank has also sought to establish knowledge databases for indigenous knowledge systems of African and other regional communities to enable 'international planners to design activities to better serve the needs of local communities.'<sup>203</sup>

The major argument in favour of these initiatives is that they enable individual and collective innovators to receive acknowledgement and financial rewards for any commercial applications of their knowledge systems, innovations and practices, while linking small investors, entrepreneurs and innovators for mutual financial benefits.<sup>204</sup> Such systems would also act as repositories of knowledge and enable searches and examinations to establish 'prior art' for purposes of patenting any indigenous innovations by entities outside the communities.<sup>205</sup> To achieve this objective, the knowledge databases would have to be made accessible, especially to

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<sup>200</sup> Ibid.

<sup>201</sup> See Anupam Chander and Madhadi Sunder, 'The Romance of the Public Domain' (2004) 92 *California Law Review* 1331, 1357.

<sup>202</sup> Ibid.

<sup>203</sup> Ibid.

<sup>204</sup> See Graham Dutfield, 'The Public and Private Domains: Intellectual Property in Traditional Ecological Knowledge' at <<http://www.oiprc.ox.ac.uk/EJWP0399.html>> at 11 April 2006.

<sup>205</sup> Ibid. This is regarded as important because in countries like the United States 'prior use' in a foreign country without formal registration is not considered 'prior art' by the U.S. patent office. See Remigius Nwabueze, 'Ethnopharmacology, Patents and the Politics of Plants' Genetic Resources' (2003) 11 *Cardozo Journal of International and Comparative Law* 585, 619.

patent offices around world, to prevent any registered knowledge or aspects thereof from being granted a patent.<sup>206</sup>

While the above advantages of the registry system have been highlighted there are also potential pitfalls that have been noted by those opposed to the registry initiative, especially the use of national and international databases:

- indigenous knowledge systems are organic in nature and develop continually. Therefore any system of registry documentation is bound diminish the relevance of these knowledge systems and overtime will stymie dynamism unless constantly updated;<sup>207</sup>
- by focusing attention on creating a registry system, necessary attention is therefore diverted from protecting indigenous knowledge systems in their natural setting, including their cultural, spiritual and other intangible relationships to the knowledge holders;<sup>208</sup>
- it is possible that these registries or databases could be compromised in any form. If this be the case, there is the possibility that some other entities, by effecting small modification(s) to particular indigenous knowhow, might seek to claim proprietary rights over them;
- such databases would constitute a veritable 'gold mine' of information for potential bioprospectors. This increases the risk that the databases might be aiding, instead of reducing, cases of unauthorized exploitation of indigenous medicinal and related knowledge;<sup>209</sup> and,

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<sup>206</sup> See Chander and Sunder above n 201, 1357.

<sup>207</sup> See Krumenacher above n 199, 157.

<sup>208</sup> Ibid.

<sup>209</sup> See Bodeker above n 56, 803.

- considering the rudimentary nature of conventional science and technology in most indigenous and local communities, it might be difficult for some of these communities to access national and international databases where their knowledge systems have been stored.<sup>210</sup>

In general, therefore, the idea of indigenous knowledge databases is still somewhat controversial, and people in several indigenous communities, especially traditional healers, do not yet support the idea.<sup>211</sup> While there are some advantages that could flow from the initiative, the idea seems to have been targeted at harnessing the commercial aspects of indigenous knowledge systems. Therefore, the system seems to have limited application, if at all, to aspects of knowledge considered sacred or culturally sensitive to the concerned local communities.<sup>212</sup>

#### 6.4.8. Moral Rights Protection

The use of 'Moral Rights' is one of the possible options to protect aspects of indigenous knowledge systems, especially those relating artistic works.<sup>213</sup> It is a term that has been translated from the French Law term *droit moral*, which expresses a right in the author's personality.<sup>214</sup> These are rights that pertain to the creators' works irrespective of the property rights or copyright attaching to such works work.<sup>215</sup>

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<sup>210</sup> There are some other insights on this issue in Craig Jacoby and Charles Weiss, 'Recognizing Property Rights in Traditional Biocultural Contribution' (1997) 16 *Stanford Environmental Law Journal* 74.

<sup>211</sup> See Coombe above n 4, 282-283.

<sup>212</sup> Ibid.

<sup>213</sup> See Kamal Puri, 'Cultural Ownership and Intellectual Property Rights Post-Mabo: Putting Ideas into Action' (1995) 9 *Intellectual Property Journal* 293,332.

<sup>214</sup> See Roberta R. Kwall, 'Copyright and the Moral Right: Is an American Marriage Possible' (1985) 38 *Vanderbilt Law Review* 1, 3.

<sup>215</sup> See Peter Anderson and David Saunders (eds), *Moral Rights Protection in a Copyright System* (1992) iii.

Moral rights could be used to protect folkloric aspect of indigenous knowledge from external distortion and misrepresentation that frequently accompany the unauthorized use of folklore.<sup>216</sup> According to Professor Kuruk, moral rights protection essentially involves three interrelated rights: the rights of divulgation, paternity and integrity.<sup>217</sup> While the right of divulgation denotes the right of the author to determine if and under what circumstances the work in question could be made public, the right of paternity affirms acknowledgement of authorship.<sup>218</sup> The right of integrity gives the author the right to object to any distortion, alteration, or other forms of misapplication or reproduction of any work even when initial permission had been granted for its use.<sup>219</sup>

The major distinguishing factor between moral rights and conventional copyright protection is that moral rights principally aim to protect persons' non-economic interests in their works.<sup>220</sup> The rationale for this has been explained by Roeder, that:

When an artist creates...he does more than being into the world a unique object having only exploitative possibilities, he projects into the world part of his personality and subjects it to the ravages of public use. There are possibilities of injury to the creator other than merely economic ones.<sup>221</sup>

The above rationale makes moral rights suitable for the protection of aspects of indigenous knowledge systems that are culturally sensitive to the communities concerned but might not carry such cultural significance to those outside the local communities. The underlying advantage is that moral

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<sup>216</sup> See Melville B. Nimmer and David Nimmer, *Nimmer on Copyright* (1978) 58.

<sup>217</sup> Ibid.

<sup>218</sup> Ibid. This right is also called the 'right of attribution.' See Anderson and Saunders above n 215, iii.

<sup>219</sup> See Kuruk above n 56, 829; citing Ralph H. Folsom et al, *International Business Transactions: A Problem Oriented Coursebook* (3<sup>rd</sup>. ed. 1995) 728.

<sup>220</sup> See Maree Sainsbury, *Moral Rights and their Application in Australia* (2003) xix.

<sup>221</sup> See Martin. A. Roeder, 'The Doctrine of Moral Rights: A Study in the Law of Artists, Authors and Creators' (1940) 53 *Harvard Law Review* 554, 557.

rights protection permits the holder(s) of any knowledge or proprietary owners of any works to determine the terms on which such knowledge or works are used or otherwise exploited.<sup>222</sup>

In actual implementation the moral rights regime seems to be particularly unclear, as the type of protection varies from one region to another and from one international instrument to another.<sup>223</sup> For instance, at the international level, the *Berne Convention*, the *Model Laws on the Protection of Folklore* 1982<sup>224</sup> and the *Draft Treaty for the Protection of Expressions of Folklore* 1984,<sup>225</sup> all made provisions for moral rights to varying degrees. However, in the context of TRIPs, the proviso to article 9(1) provides that 'members shall not have rights or obligations under this Agreement in respect of the rights conferred under Article 6bis' of the *Berne Convention*. Article 6bis confers moral rights protection. The implication of the TRIPs provisions is that no state can rely on them to legislate moral rights protection.<sup>226</sup>

At the domestic levels, several countries have incorporated moral rights into their national legislation, especially their copyright legislation. As will be seen below, this practice of legislating moral rights as part of the copyright regime has its implications. In Australia, moral rights were not recognized under the *Copyright Act* 1968<sup>227</sup> until the year 2000, when the *Copyright Amendment*

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<sup>222</sup> See Patty Gerstenblith, 'Architect as Artist: Artists' Rights and Historical Preservation' (1994) 12 *Cardozo Arts and Entertainment Law Journal* 431, 438-444.

<sup>223</sup> See generally Dane Ciolino, 'Moral Rights and Real Obligations: A Property Law Framework for the Protection of Authors' Moral Rights' (1995) 69 *Tulane Law Review* 935, 940; Burton Ong, 'Why Moral Rights Matter: Recognizing the Intrinsic Value of Integrity Rights' (2003) 26 *Columbia Journal of Law and Arts* 297; Susan P. Liemer, 'Understanding Artists' Moral Rights: A Primer' (1998) 7 *Boston University Public Interest Law Journal* 41;

<sup>224</sup> See sections 3 and 5 of the Model Law. For the text of the Model Laws see <<http://www.wipo.int/tk/en/documents/pdf/1982-folklore-model-provisions.pdf>> at 14 April 2006.

<sup>225</sup> See article 4 of the Draft Treaty. The drawback to the provision is that authorization is required only when the expression of folklore is to be used for profit purposes. However article 7 requires acknowledgment of source of folklore under any circumstances. For the text of the treaty, see <<http://www.copyrightnote.org/statute/cc0014.html>> at 14 April 2006.

<sup>226</sup> See Kuruk above n 56, 830.

<sup>227</sup> For the text of the *Copyright Act*, see

<[http://www.austlii.edu.au/au/legis/cth/consol\\_act/ca1968133/](http://www.austlii.edu.au/au/legis/cth/consol_act/ca1968133/)> at

(*Moral Rights*) Act 2000<sup>228</sup> was passed. Section 189 of the amended *Copyright Act* 1968 describes moral right as either (a) 'a right of attribution of authorship; or (b) a right not to have authorship falsely attributed; or (c) a right of integrity of authorship.'<sup>229</sup>

In Canada, section 14(1) of the *Copyright Act* 1985 provides for moral rights in virtually the same terms as the Australian legislation. However, in the United States the evolution of moral rights had taken a different dimension, due largely to the historical antipathy towards moral rights by the U.S. Congress.<sup>230</sup> This prompted some states like California (1982)<sup>231</sup> and New York (1983)<sup>232</sup> to enact their own moral rights legislation, even when there was no national legislation on the subject.<sup>233</sup> The Federal moral rights legislation in the U.S. was finally enacted in 1990 as the *Visual Artists Rights Act* (VARA) 1990. As the name indicates, protection under VARA is limited to works of visual arts,<sup>234</sup> and even so, only to the artists' rights of attribution

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<sup>228</sup> For the text of the *Moral Rights Act*, see

< <http://scaleplus.law.gov.au/html/comact/10/6273/0/CM000060.htm> > at 14 April 2006.

<sup>229</sup> Ibid.

<sup>230</sup> See Kremers above n 154, 111. Also see generally Dane Ciolino, 'Rethinking the Compatibility of Moral Rights and Fair Use' (1997) 54 *Washington and Lee Law Review* 33; Geri J. Yonover, 'The Precarious Balance: Moral Rights, Parody and Fair Use' (1996) 14 *Cardozo Arts and Entertainment Law Journal* 79; Laura W. Wooten, 'Law for Law's Sake: The Visual Arts Rights Act of 1990' (1991) 24 *Connecticut Law Review* 247; Edward Damich, 'Moral Rights Protection and Resale Royalties for Visual Art in the United States: Development and Current Status' (1994) 12 *Cardozo Arts and Entertainment Law Journal* 387.

<sup>231</sup> See the *California Art Preservation Act* (CAPA) 1982 (California Civil Code 987) at <[http://www.sfartscommission.org/pubart/about\\_us/policies\\_guidelines/capa.htm](http://www.sfartscommission.org/pubart/about_us/policies_guidelines/capa.htm)> at 15 April 2006.

<sup>232</sup> See the *New York Artists Authorship Rights Act* (NYAARA) 1983 in Kremers above n 154, 117, noting that other states followed suit including Connecticut, Rhodes Island, South Dakota, Maine, New Jersey, Nevada, Illinois, Massachusetts, and New Mexico. See also Edward Damich, 'The New York Artists' Authorship Rights Act: A Comparative Critique' (1984) 84 *Columbia Law Review* 1733.

<sup>233</sup> See Kremers above n 154, 111.

<sup>234</sup> The term visual art under the law excludes map, globe, newspaper, diagram, model, magazine, technical drawing, periodical, database, motion picture, electronic information service, any work made for hire or not protectable by copyright, advertising or promotional materials, among others. See Ivan Hoffman, 'The Visual Artists Rights Act' at <<http://www.ivanhoffman.com/vara.html>> at 15 April 2006. See also Edward Damich, 'The Visual Artists Rights Act of 1990: Toward a Federal System of Moral Rights Protection for Visual Art' (1990) 39 *Catholic University Law Review* 945.



and integrity.<sup>235</sup> This presupposes that artists' right of divulgation, that is, to determine when and how their works could be displayed is not covered under the law.<sup>236</sup> To that extent therefore the reach of moral rights protection under the VARA is very limited.<sup>237</sup>

In contrast, the moral rights tradition is much stronger in Europe, and France has been touted as the birthplace of moral rights protection.<sup>238</sup> Moral rights provisions have also been incorporated into the domestic laws of several European countries, including Germany, Italy and Britain.<sup>239</sup> Several countries in Africa and South America including Senegal, Gabon, Benin, Congo and Cameroon, Mexico and many of the countries in Central America have also recognized moral rights domestically.<sup>240</sup> The present global assessment therefore indicates that moral rights have been accepted as tools in protecting various aspects of creativity. How then can moral rights apply to the protection of the relevant aspects of indigenous knowledge systems?

In principle moral rights appears very appropriate as tools that could be used to protect relevant aspects of indigenous knowledge systems. This is because of the emphasis that indigenous communities place on the rights of divulgation, attribution and integrity in indigenous literary and artistic works,<sup>241</sup> especially in their dealings with non-indigenous entities. However, in practice it appears that moral rights are inadequate in protecting entrenched indigenous interests in artistic and literary works. This inadequacy stems not so much from the conceptual formulation of moral

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<sup>235</sup> See Kremers above n 154, 112.

<sup>236</sup> The Australian law also does not provide for this right.

<sup>237</sup> For a historical overview of moral rights in the U.S. see generally Thomas Cotter, 'Pragmatism, Economics, and the Droit Moral' (1997) 76 *North Carolina Law Review* 1.

<sup>238</sup> See generally, Edward J. Damich, 'The Right of Personality: A Common Law Basis for the Protection of the Moral Rights of Authors' (1988) 23 *Georgia Law Review* 1.

<sup>239</sup> Ibid.

<sup>240</sup> See Kremers above n 154, 109-110, citing S. Ricketson, *The Berne Convention for the Protection of Literary and Artistic Works: 1886-1986* (1987) 8.112; see also Henry Hansmann and Marina Santilli, 'Authors' and Artists' Moral Rights: A Comparative Legal and Economic Analysis' (1997) 26 *Journal of Legal Studies* 95.

<sup>241</sup> See Sainsbury above n 220, 112-113.

rights, but from their legislative implementation domestically, which, more often than not ties moral rights with conventional copyright protection. A few examples with suffice.

Under section 190 of the Australian *Copyright Act* 1968 (as amended), only individuals are conferred with moral rights in protected works. This implies that indigenous works of arts and literature that are communally owned would not be protected under the law. A possible solution could be for the concerned communities to invest their rights in an individual who could then assume the rights conferred under the Act. It is, however, unlikely that this suggestion will suffice under the law. This is because section 195 requires that the author(s) of any work(s) be clearly identified in order to give any person(s) acquiring such work(s) a notice of the author's identity. In addition to this, section 195AN(3) prohibits the assignment of moral rights in any form.

The imperfections in the above Act prompted the introduction of the *Draft Copyright Amendment (Indigenous Communal Moral Rights) Bill* 2003 (now the *Copyright Amendment (Indigenous Communal Moral Rights) Bill* 2005, to cater for indigenous communal interests in literary and artistic works. However the Draft Bill has been criticized as doing little to ensure the protection of indigenous communal rights in targeted works.<sup>242</sup> According to Anderson, the Bill presents serious obstacles to indigenous and local communities to protect their artistic works and their manner of usage.<sup>243</sup> For instance, the Bill requires indigenous communities to initiate contact with persons interested in using their works instead of the other way round.<sup>244</sup> It has been submitted that, in its present state, the Bill would not have recognized any of the

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<sup>242</sup> <sup>242</sup> See Jane Anderson, 'The Politics of Indigenous Knowledge: Australia's Proposed Communal Moral Rights Bill' at <http://www.copyright.bbk.ac.uk/contents/workshops/anderson.pdf> at 15 April 2006.

<sup>243</sup> Ibid.

<sup>244</sup> Ibid. For other criticisms of the Bill, see the submission of the Arts Law Centre of Australia to the Attorney General of Australia on the proposed Bill at <http://www.artslaw.com.au/documents/files/ArtsLawICMRDraftBillSub.pdf> at 15 April 2006.

infractions that were discussed in the *Bulun Bulun* and *Milpururru* cases, as the Bill requires the parties to have entered into an agreement before a breach could be alleged by the communities.<sup>245</sup>

As at May 2006, governmental consultations and further refining of the Bill are said to be ongoing.<sup>246</sup> It is hoped that since the Bill is still in its draft stages, coupled with continuing consultations and modifications, its final provisions will provide better protection for Australian local communities.

In Canada, moral rights protections are also lumped with the copyright legislation. Therefore, the above suggestion about assigning communal rights to an individual to enforce is also untenable. Under section 14.1(2) of the *Copyright Act 1985*, assignment of moral rights, either wholly or in part, is prohibited. This is also the position under section 106A(e) of the U.S. federal moral rights law, the VARA.<sup>247</sup>

Another problematic area in applying moral rights to indigenous knowledge systems concerns the limited terms of protection adopted by most domestic legislation. For instance, under section 195(AM) of the Australian *Copyright Act*, an author's moral right of integrity of authorship in cinematographic films subsists until the death of the author. For other genre of moral rights, and for non-cinematographic subjects, such rights subsist until copyright in such works lapses. These latter rights devolve on the author's representatives at his death and lapse with the copyright.<sup>248</sup> In a similar provision, under

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<sup>245</sup> See Jane Anderson, 'Indigenous Communal Moral Rights: The Utility of an Ineffective Law' at <<http://www.austlii.edu.au/au/journals/ILB/2004/15.html>> at 15 April 2006.

<sup>246</sup> See the Attorney General's Department: 'Planned Activity: Copyright Amendment (Indigenous Communal Moral Rights) Bill 2005' at <[http://www.ag.gov.au/agd/WWW/agdHome.nsf/Page/Regulatory\\_Plans\\_Regulatory\\_Plan\\_Entries\\_Proposed\\_Regulatory\\_Items\\_Copyright\\_Amendment\\_\(Indigenous\\_Communal\\_Moral\\_Rights\)\\_Bill\\_2005](http://www.ag.gov.au/agd/WWW/agdHome.nsf/Page/Regulatory_Plans_Regulatory_Plan_Entries_Proposed_Regulatory_Items_Copyright_Amendment_(Indigenous_Communal_Moral_Rights)_Bill_2005)> at 7 July 2006.

<sup>247</sup> However, in both the United States and Canada authors' moral rights could be waived in writing.

<sup>248</sup> See section 195AN of the Act. This is the only provision that allows for devolution of moral rights.

section 14.2 (1) of Canada *Copyright Act*,<sup>249</sup> moral rights in respect of any protected work subsist for the same term as the copyright in the work.

In the United States, the federal moral rights law creates a dichotomy of protection depending on whether the works were made on or before the adoption of the law. In most cases, moral rights endure during the life of the artist.<sup>250</sup> However, for works created before June 1991, and for which title has not been transferred moral rights endure till the lapse of the copyright in such works.<sup>251</sup> One unique exception appears to be the French moral rights regime, which provides for robust and perpetual authors' paternity moral rights protection.<sup>252</sup>

From the above discussions, it is clear that in implementing moral rights legislation domestically, most states have incorporated the underlying copyright rationale that these rights are meant to protect the personality of the author.<sup>253</sup> The limitation of term of protection is a problem for indigenous communities. Most of these communities would prefer to ensure that the integrity of the works endure beyond any limited protection.<sup>254</sup> This is because, in actual fact, it is the communities' cultural and spiritual interests in the works, and not strictly the reputation of the artist(s), with which they are concerned.<sup>255</sup> Since such interests are perpetual in nature, any moral rights

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<sup>249</sup> See the *Copyright Act* 1985 Cap C-42. For the text of the Act see <<http://www.cb-cda.gc.ca/info/act-e.html#rid-33333>> at 17 April 2006.

<sup>250</sup> See Kremers above n 154, 117.

<sup>251</sup> See section 106A(d)(1)(4) in Ciolino above n 223, 46.

<sup>252</sup> See Ernest Goldstein, 'France Protects Authors' Moral Rights' *The New York Times*, 12 December 1993 at

<http://query.nytimes.com/gst/fullpage.html?res=9F0CE6D8173CF931A25751C1A965958260> at 17 April 2006. See generally Calvin D. Peeler, 'From the Providence of Kings to Copyrighted Things (and French Moral Rights)' (1999) 9 *Indiana International and Comparative Law Review* 423; Karen M. Corr, 'Protection of Art Work Through Artists' Right: An Analysis of State Law and Proposal for Change' (1989) 38 *American University Law Review* 855; Leslie A. Pettenati, 'Moral Rights of Artists in an International Market Place' (2000) 12 *Pace International Law Review* 425; W.W. Kowalski, 'A Comparative Law Analysis of The Retained Rights of Artists' (2005) 38 *Vanderbilt Journal of Transnational Law* 1141.

<sup>253</sup> See Farley above n 103, 48.

<sup>254</sup> *Ibid* 48-49.

<sup>255</sup> *Ibid*.

regime that does not match such perpetuity would fall short of being effective. Finally, and quite importantly, the omission of group rights from moral rights protection overlooks the fact that community harm could occur when there is an unauthorized use of aspects of indigenous knowledge systems that are protectable under moral rights.<sup>256</sup> In all circumstances described above such harm would probably go unredressed.

#### **6.4.9. Contracts and Material Transfer Agreements (MTAs)**

Contracts and agreements in various forms including specific Material Transfer Agreements (MTAs) have been suggested and sometimes used to protect the interests of indigenous and local communities in appropriate circumstances.<sup>257</sup> This is usually with respect to transactions that involve transfer of medicinal, biodiversity or other specific elements of indigenous genetic resources. The use of contracts and MTAs is recommended in these cases because the parties to such contracts could be determined beforehand (community, family, clan, individual) and the details of the agreement, including tenure, compensation, terms of use and reversal of interests could be set by the parties from the outset. In a sentence, these agreements permit a *sui generis* approach to knowledge protection.

Another advantage of using contracts is local communities are able to bypass the States and negotiate on their own behalf,<sup>258</sup> although this would not necessarily preclude the supervisory roles assigned to states under several

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<sup>256</sup> See Kuruk above n 56, 830.

<sup>257</sup> See Paterson and Karjala above n 12, 662-663.

<sup>258</sup> See Naomi-Roht-Arriaza, 'Of Seeds and Shamans: The Appropriation of the Scientific and Technical Knowledge of Indigenous and Local Communities' (1996) 17 *Michigan Journal of International Law* 919, 959-960. See also Erik Bluemel, 'Separating Instrumental from Intrinsic Rights: Toward an Understanding of Indigenous Participation in International Rule-Making' (2005/2006) 30 *American Indian Law Review* 55, 124-125.

international agreements.<sup>259</sup> By negotiating in their own rights, indigenous and local communities are better able to channel the proceeds of these transactions directly to the concerned local communities.<sup>260</sup> Added to the above, the use of contracts also enables the decentralization of controls over the use of community resources, and in so doing, offers flexibility in the ability of the communities to designate individual or representatives when dealing with different aspects of their knowledge systems.<sup>261</sup>

In actual practice, the use of contracts seems to have been applied mainly to transactions involving plant varieties and genetic materials.<sup>262</sup> This is reflected in article 12.4 of the *International Treaty on Plant Genetic Resources* 2001,<sup>263</sup> which mandates that access and benefit-sharing arrangements under the Treaty be negotiated through MTAs.<sup>264</sup> Furthermore, paragraph 42(d) and 49 of the *Bonn Guidelines* 2002<sup>265</sup> also makes provision for flexible terms in MTAs to guide benefit-sharing arrangements in fulfilling the terms of article 15(7) of the CBD.<sup>266</sup> The WIPO Committee has also drawn-up a guide called 'Contractual Practices and Clauses Relating to Intellectual Property, Access to Genetic Resources and Benefit-Sharing' to assist parties in adopting the contract model.<sup>267</sup>

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<sup>259</sup> Most international instruments including the CBD, the UPOV and the ITPGR require respective states to implement their provisions.

<sup>260</sup> See Róht-Arriaza above n 258, 959-960.

<sup>261</sup> Ibid.

<sup>262</sup> See Kuruk above n 56, 834.

<sup>263</sup> The *International Treaty on Plant genetic Resources for Food and Agriculture* 2001. For the text of the treaty see <<ftp://ext-ftp.fao.org/ag/cgrfa/it/ITPGRe.pdf>> at 20 April 2006.

<sup>264</sup> See generally Daniel M. Putterman, 'Model Material Transfer Agreements for Equitable Biodiversity Prospecting' (1996) 7 *Colorado Journal of International Environmental Law and Policy* 149; Steven M. Rubin and Stanwood C. Fish, 'Biodiversity Prospecting: Using Innovative Contractual Provisions to Foster Ethnobotanical Knowledge' (1994) 5 *Colorado Journal of International Environmental Law and Policy* 23.

<sup>265</sup> The *Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization* 2002. For the text of the Guidelines, see <<http://www.biodiv.org/doc/publications/cbd-bonn-gdls-en.pdf>> at 20 April 2006.

<sup>266</sup> Appendix 1 to the Bonn Guidelines contains a sample MTA.

<sup>267</sup> See WIPO document WIPO/GRTKF/IC/5/9, March 31 2003 at <[http://www.wipo.int/documents/en/meetings/2003/igc/pdf/grtkf\\_ic\\_5\\_9.pdf](http://www.wipo.int/documents/en/meetings/2003/igc/pdf/grtkf_ic_5_9.pdf)> at 20 April 2006.

From the above discussions, it appears on the face value that MTAs and other forms of contract are well-suited to the needs of indigenous and local communities in protecting aspects of their knowledge systems. To a large extent this is a correct observation. However, even with contracts, there are still problems to be dealt with to guarantee an effective protection of indigenous interests. This aspect will be discussed in the next chapter.

Despite the noted advantages of using contracts to protect indigenous interests in appropriate circumstances, there is still no unanimity of opinion among scholars, activists and indigenous communities on the utility of the model.<sup>268</sup> However, there is consensus that the following problems exist with the contract model:

- there is usually a disparity between indigenous communities and potential contractual partners in terms of financial resources, negotiating power, and ability to enforce the contract in the event of a breach;<sup>269</sup>
- there is the possibility that many indigenous communities might not understand the standard terms of contracts or the value of the information they are communicating through such contracts.<sup>270</sup> The exception here is where a particular community has somebody versed in contract law to assist the community at minimal or no cost;
- there is a degree of apprehension that contracts might exacerbate any existing divisions among indigenous and local communities, that is, if a community or part thereof excludes others from sharing in the

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<sup>268</sup> See Roht-Arriaza above n 258, 959.

<sup>269</sup> Ibid.

<sup>270</sup> See Paterson and Karjala above n 12, 663.

proceeds from any agreement.<sup>271</sup> This problem could also occur with any other model;

- it has been submitted that sometimes there could be a problem with determining the authorized persons within local communities to act as representatives and negotiate on their behalf and give the requisite consent.<sup>272</sup> In such circumstances care should be taken to identify those with the appropriate authorization, otherwise such contracts would be voided;

In discussing the use of contracts and other agreements in this section, it is presumed that this will involve indigenous communities negotiating the contracts themselves and not through intermediaries. The much-heralded agreement between Merck Pharmaceuticals and INBio of Costa Rica has been criticized because INBio was a creation of the government. In this way, the government disburses the royalties collected on behalf of concerned local communities discretionarily. This type of governmental paternalism over indigenous communities is not what is intended in the present context.

From another perspective, it has been submitted that when it was negotiated, the Merck/INBio Agreement did not reflect the realities of the time.<sup>273</sup> According to Kadidal, for a start, the agreement was negotiated by the government of Costa Rica from a disadvantaged bargaining position,<sup>274</sup> resulting in the payment of one million dollars by Merck, and a potential royalty of one to two percent.<sup>275</sup> This amount is said to be an under-valuation

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<sup>271</sup> See Jack Kloppenburg, Jr., 'Whither Farmers' Rights?' (Unpublished Manuscript, October 1994), in Roht-Arriaza above n 258, 960fn.

<sup>272</sup> See Paul J. Heald, 'The Rhetoric of Biopiracy' (2003) 11 *Cardozo Journal of International and Comparative Law* 519, 535.

<sup>273</sup> See Shayan Kadidal, *Plants, Poverty, and Pharmaceutical Patents* (1993) 103 *Yale Law Journal* 223.

<sup>274</sup> *Ibid.*

<sup>275</sup> *Ibid.*



of the potential benefits accruable from the agreement.<sup>276</sup> According to Kadidal, this was a result of a 'severe imbalance of bargaining power: the enormous wealth of a multinational corporation matched against the enormous financial need of a developing nation.'<sup>277</sup>

In the final analysis, and considering the concerns raised above, it could be said that while MTAs, contracts, and other forms of specialized agreements have their attractions and advantages, they should be viewed and applied with caution in relation to indigenous and local communities. For instance, in situations where issues flowing from bioprospecting contracts would result in the polarization of local communities and threaten their internal cohesion, such an option should not be explored.

## 6.5. The WIPO Initiative

The discussions above have highlighted the difficulties inherent in attempting to apply IPRs mechanisms to protect diverse aspects of indigenous knowledge systems. In an attempt to deal with these difficulties the WIPO, acting through the Intergovernmental Committee on Intellectual Property, Genetic Resources and Traditional Knowledge and Folklore (the Committee),<sup>278</sup> seems to have internalized the various concerns of indigenous and local communities and is attempting to broker a compromise. To do this, the Committee has developed and is continually revising various guidelines aimed at aligning IPRs and indigenous knowledge systems while addressing some of the key concerns of local communities highlighted above.

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<sup>276</sup> Ibid.

<sup>277</sup> Ibid 235.

<sup>278</sup> The Committee was established by WIPO General Assembly in October 2000 as an international forum that debates and dialogues on the interplay between IPRs and indigenous knowledge systems. For details about the Committee and its activities, see <http://www.wipo.int/tk/en/igc/> at 22 April 2006.

In dealing with the sundry issues that pertain to indigenous peoples and their knowledge systems, the guidelines seek to provide broad-based 'Objectives and Principles' to assist all stakeholders in this area.<sup>279</sup> The overall intent is to assist those responsible for formulating and implementing protective mechanisms for indigenous knowledge systems to arrive at mutually acceptable standards with local communities for harnessing the systems. The guidelines delve into several areas of concern to indigenous peoples and the key provisions can be summarized as follows:

- recognizing the value and promoting respect for indigenous knowledge systems;
- empowering the holders of, and acknowledging the distinctive nature and specific characteristics of indigenous knowledge systems;
- supporting the customary use and transmission of indigenous knowledge systems, while promoting equitable benefit-sharing and repressing misappropriation of the knowledge systems;
- Recognizing and respecting the rights of knowledge holders to the effective protection of their knowledge systems;
- Formulating flexible protective mechanisms in order to accommodate the diversity of knowledge systems held by diverse indigenous and local communities.<sup>280</sup>

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<sup>279</sup> The latest guidelines are contained in WIPO, 'The Protection of Traditional Knowledge: Revised Objectives and Principles, WIPO/GRTKF/1C/9/5, Prepared for discussion by the 9<sup>th</sup> Session of the Committee, April 24 –28 2006. For the full comments and recommendations, see

<[http://www.wipo.int/edocs/mdocs/tk/en/wipo\\_grtkf\\_ic\\_9/wipo\\_grtkf\\_ic\\_9\\_5.pdf](http://www.wipo.int/edocs/mdocs/tk/en/wipo_grtkf_ic_9/wipo_grtkf_ic_9_5.pdf)> at 22 April 2006.

<sup>280</sup> Ibid.

Added to the above are other potentially far-reaching provisions that require further comments. In the latest revised 'Objectives and Principles' (January 2006) the detailed statement of 'Substantive Principles' (the Principles) makes recommendations that would reduce the areas of friction between IPRs and indigenous knowledge systems. For instance, article 2 of the Principles recommends that the protection of indigenous knowledge systems may be implemented through a *mélange* of legal measures, including environmental laws, criminal laws, torts, liability for compensation, laws governing civil liability, laws regulating unfair competition and unjust enrichment, and law of contract.<sup>281</sup> In addition, it recommends that forms of protection need not be through exclusive property rights, although such exclusive rights may still be available in appropriate circumstances for individual and collective holders of knowledge.<sup>282</sup>

The recommendations are meant to give wider latitude to those responsible for the policy formulation with respect to protecting indigenous knowledge systems. They are also aimed at assuaging the concerns of local communities that view most IPRs mechanism as attempting to impose private rights on their communal rights when it comes to actual implementation. Furthermore, the issue of 'exclusivity of rights,' which has been a thorny point in the application of IPRs to indigenous knowledge is also de-emphasized, to accommodate various 'borderline rights' that are common within indigenous proprietary regimes.

Another interesting addition is the provision of article 9 of the Principles. It provides that protection for any aspect of indigenous knowledge systems should last as long as the system maintains the eligibility criteria for protection. The criteria as stated in article 4 require that protectable knowledge systems should be those that are generated, preserved and

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<sup>281</sup> Ibid.

<sup>282</sup> Ibid.

transmitted inter-generationally by the communities concerned. Furthermore, such knowledge systems must have distinct association with the communities that preserve and transmit them and be part of their cultural identity, expressed formally through laws or protocols, or informally through customary practices.

This latter provision seeks to tackle one of the most common criticisms against IPRs mechanisms, especially patents and copyrights, that is, the limitation of protective terms. It has been variously submitted that the nature of indigenous knowledge systems, especially the attribute of being transmitted from one generation to another, renders mechanisms that limit the duration for protection inappropriate. The WIPO Committee based its suggestion for limitless duration on the understanding that such protection is not comparable to intellectual property laws that grant exclusive IPRs. On the contrary it takes the form of protecting a distinct association between the beneficiaries of the protection and the protected subject-matter.<sup>283</sup>

The third provision to note is in article 11, which specifies that protection for indigenous knowledge systems should not require any formalities. In essence, the question of establishing databases, community registers, or having any form of compendium of indigenous knowledge should be discretionary and for the local communities concerned to decide. This recommendation, it appears, is intended to eliminate the proposition that knowledge systems that are not formally registered or collated are deemed to be in the public domain to be generally accessed without anybody's consent.

Although the above are the recommendations of a Committee in WIPO, and therefore non-binding on states or other entities, they represent a bold attempt at establishing a seamless protective relationship between IPRs and indigenous knowledge systems. Having said that, the real problem lies, as

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<sup>283</sup> Ibid.

always, with the willingness of states to implement these recommendations. It is doubtful whether any state that has a functional IPR protection system would implement these recommendations. This is because they go to the heart of what intellectual property represents and turn same upside down. This apparently explains why the Committee has not made any headway in agreeing on any of the recommendations, as illustrated by its last meeting in April 2006, which ended in a deadlock. No agreement could be reached on any of the recommendations.<sup>284</sup>

It appears that in attempting to bring indigenous knowledge systems under IPRs protection, the Committee has made recommendations that have the potential to seriously undermine the very IPR regime that is its core business. This is because, if implemented, these recommendations are bound to conflict with, and undermine, the IPR system.

Finally, one question might still be asked: would a protective mechanism that incorporates all the recommendations of the WIPO Committee rightly be called 'IPRs'? This is doubtful. The WIPO Committee itself has made it clear that it is not focusing solely on IPRs protection in making proposals and some of its recommendations abandoned the defining characteristics of IPRs, including exclusivity of rights and limitation on terms of protection.

## 6.6. Conclusion

The discussions in this chapter have illustrated the difficulties in attempting to protect indigenous knowledge systems through IPRs mechanisms. In the overall assessment, what is clear is the distinct nature of these systems, and

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<sup>284</sup> The meeting has adjourned to December 2006 to continue deliberations. There seems to be have been popular reception of the submission from Norway that the Committee should focus on the potential areas of consensus instead of discussion areas where there are serious disagreements among members. The Norwegian submission is in WIPO/GRTKF/1C/9/12 at <http://www.wipo.int/tk/en/igc/> at 24 April 2006.

the apparent need for 'special protective regime' that addresses this uniqueness. As noted in chapter one of this work, the key attribute of indigenous knowledge systems is the preponderance of communal rights over individual rights. It is these communal rights that warrant inter-generational transmission of knowledge and implicate unlimited tenure of protection. These features have in turn made it difficult to apply conventional IPRs mechanisms, including patents and copyrights.

Another recurrent decimal throughout this chapter has been the apparent inability of fitting conventional IPRs mechanisms and concepts into indigenous group rights. Attempts to solve this problem by suggesting joint ownership, for example, in applying for patent protection, are grossly inappropriate. This is because, unlike the rights derivable from incidences of joint ownerships or inventions, indigenous communal rights are usually not negotiated or structured by the beneficiaries. On the contrary, these rights devolve on the beneficiaries by virtue of their membership of the unit exercising such rights (family, clan, community.) Even though there are instances when such rights are entrusted to individuals to exercise on behalf of the holder-communities, those are considered exceptions rather than the rule. The circumstances in which individuals could also exercise private rights in their own rights as determined by the community, are also limited. These are some of the issues that must be considered in attempting to fashion any protective mechanism for indigenous knowledge systems.

In the final analysis, it is important that, when structuring any protective mechanism for indigenous knowledge systems, that the collective or group nature of indigenous knowledge and resource and are given principal consideration. In the absence of the recognition of their collectivity, any mechanism that is meant to protect the interests of indigenous and local communities will prove largely ineffective. This ineffectiveness might not be as a result of the nature of the mechanisms themselves, but because the

peculiar nature of indigenous knowledge systems does not permit the type of compartmentalization that some mechanisms, for instance, IPRs mechanisms, require. As noted severally in this work, this peculiar nature of indigenous knowledge systems is predicated on the complex nature of their communal and kinship relations, which, in effect, necessitates that knowledge and resources are predominantly exploited collectively.

From the totality of the above discussions, it is clear that the importance of these group rights to indigenous discourse must be acknowledged as the starting point for protecting indigenous interests. Therefore, the next chapter will consider the nature of these group rights and how they might be formulated and applied to effectively protect indigenous knowledge systems.

## **Chapter Seven**

### **Indigenous Group Rights and the Protection of Indigenous Knowledge Systems**



## Chapter Seven

### Indigenous Group Rights and the Protection of Indigenous Knowledge Systems

We call on the international community to faithfully respect the Indigenous Peoples' demand that their cultural heritage be recognized as collective rights. Each State shall institute and enforce laws to protect these rights.<sup>1</sup>

#### 7. Introduction

The preceding chapters of this work have highlighted the constant tensions inherent in attempting to interpose conventional Western proprietary concepts and protective mechanisms on indigenous knowledge systems.<sup>2</sup> These tensions also help to clearly clarify that most specific IPRs mechanisms, particularly patents and copyrights, are ill-suited to protect these knowledge systems.

The ascendancy of indigenous rights within the international system effectively started about two decades ago and this has led to an increased intensity in discussions about these tensions in recent decades.<sup>3</sup> One of the major factors responsible for these tensions is the innate collective nature of

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<sup>1</sup> See the *Taipei Declaration on the Rights of Indigenous Peoples* 1999, adopted by the International Conference on the Rights of Indigenous Peoples, Taipei, Taiwan, June 18-20 1999; at <<http://aotearoa.wellington.net.nz/imp/td.html>> at 1 May 2006. Also, see generally Alasdair C. Macintyre, *After Virtue: A Study in Moral Theory* (1981) 200- 221; Adeno Addis, 'Individualism, Communitarianism and the Rights of Ethnic Minorities' (1992) 67 *Notre Dame Law Review* 615, 640.

<sup>2</sup> See generally Daniel J. Gervais, 'The Internationalization of Intellectual Property: New Challenges from the Very Old and the Very New' (2002) 12 *Fordham Intellectual Property, Media and Entertainment Law Journal* 929.

<sup>3</sup> See Arthur Manuel and Nicole Schabus, 'Indigenous Peoples at the Margin of the Global Economy: A Violation of International Human Rights and International Trade Law' (2005) 8 *Chapman Law Review* 229, 258.

indigenous interests as reflected in different aspects of their knowledge systems.<sup>4</sup> This has led to situation where some traditional Western concepts, such as 'property' and 'ownership,' among others, have struggled to find a place within indigenous parlance. Furthermore, as was seen in the last chapter, this unique feature of indigenous knowledge systems also accounts for the apparent difficulty in applying conventional IPR protection to the relevant aspects of the knowledge systems.<sup>5</sup> Therefore, any attempt to effectively protect indigenous knowledge systems requires the formulation of a regime that would obviate the obstacles faced by IPRs mechanisms, by addressing the collective rights of indigenous and local communities.

This chapter will propose the protection of indigenous knowledge systems through a regime that recognizes the rights of indigenous and local communities as 'groups.'<sup>6</sup> It should be noted that is in contrast to the conventional mainstream rights' discourse, which sees 'collective rights' as the rights of individuals exercisable through their membership of particular groups.<sup>7</sup> In the main, both international law and international human rights law have developed on the notion that rights are to be exercised by individuals,<sup>8</sup> and when groups are involved, then, they are deemed to be aggregates of individual persons.<sup>9</sup> For instance, article 2 of the *Universal*

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<sup>4</sup> See Dalee Sambo, 'Indigenous Peoples and International Standard Setting: Are State Governments Listening?' (1993) 3 *Transnational Law and Contemporary Problems* 13, 21.

<sup>5</sup> See generally Darrell Posey and Graham Dutfield, *Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities* (1996) 76-82.

<sup>6</sup> See generally Jerome Wilson, 'Ethnic Groups and the Right to Self-Determination' (1996) 11 *Connecticut Journal of International Law* 433, 456-457.

<sup>7</sup> Anaya has suggested ways to identify indigenous rights from the rights of 'other minorities.' See James A. Anaya, *Indigenous Peoples in International Law* (2004) 19-23.

<sup>8</sup> In most cases, these rights are to be exercised through the instrumentality of the states, or states' structures. The position of individuals in international law is however changing and continually so. See generally Dean Suagee, 'Self-Determination for Indigenous Peoples at the Dawn of the Solar Age' (1992) 25 *University of Michigan Journal of Law Reform* 671; Russel L. Barsh, 'Indigenous Peoples in the 1990's: From Object to Subject of International Law?' (1994) 7 *Harvard Human Rights Journal* 33. See generally Theodor Meron, *Human Rights in Internal Strife: Their International Protection* (1987) 33-38; Mark W. Janis, 'Individuals as Subjects of International Law' (1984) 17 *Cornell International Law Journal* 61.

<sup>9</sup> See generally Joan C. Williams, 'The Invention of the Municipal Corporation: A Case Study in Legal Change' (1985) 34 *American University Law Review* 369, 377-385; Joseph E. Bush,

*Declaration of Human Rights* 1948<sup>10</sup> states, in part, that 'everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind, such as race, colour, sex, language, religion, political...birth or other status...' The word 'everyone' is indicative of the person-centric objective of the Declaration and this trend dominates most of its articles.<sup>11</sup>

This person-centric notion of 'rights' in international law appears to have been changing gradually since the latter part of the twentieth century.<sup>12</sup> The sustained discourse on the protection of group rights has contributed in attempting to offer, even if in limited circumstances, an alternative platform where some group rights could attach and be exercised collectively by particular groups.<sup>13</sup> This is where the issue of indigenous rights manifests. Notwithstanding the fact that discussions on group rights at the international level have largely been raised as human rights issues, this chapter will not proceed from that perspective. The present discussions will approach indigenous group rights purely as 'cultural and resource rights' that are imperative for the effective protection of indigenous knowledge systems.

This chapter will strive to avoid the semantics and theoretical debates that trail the concepts of 'group rights,' 'corporate rights,' and 'collective rights,' and, in fact, the whole contemporary rights discourse.<sup>14</sup> In doing this, the present discussions will not delve into the jurisprudential or philosophical discussions on the concept of 'rights' *qua* rights, or the evolutionary processes

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'Defining Group Rights and Delineating Sovereignty: A Case from the Republic of Fiji' (1999) 14 *American University International Law Review* 735.

<sup>10</sup> Adopted and Proclaimed by the U.N. General Assembly Resolution 217 A (111) of 10 December 1948. For the text of the Declaration, see <http://ccnmtl.columbia.edu/projects/mmt/udhr/> at 3 May 2006.

<sup>11</sup> This is reflected in articles 2, 6, 8, 10, 11, 13-16 and 18-29 of the Declaration.

<sup>12</sup> See Meron above n 8, 33-38.

<sup>13</sup> In this respect it must be noted that scholarly commentaries on indigenous collective rights have been very instrumental to this endeavour. See generally Patrick Thornberry, 'Images of Autonomy and Individual and Collective Rights in International Instruments on the Rights of Minorities' in Markku Suski (ed), *Autonomy: Applications and Implications* (1998) 97.

<sup>14</sup> See, for instance, Justin Desautels-Stein, 'National Identity and Liberalism in International Law: Three Models' (2005) 31 *North Carolina Journal of International Law and Commercial Regulation* 463, 487

through which groups or collectives emerge. These issues have been treated exhaustively and comprehensively elsewhere.<sup>15</sup> The chapter will use the terms 'group rights,' 'collective rights,' and 'communal rights,' interchangeably but without regard to any conceptual distinguishing attributes among them. For the present purposes, the terms 'groups' and 'group rights' are used solely for the purposes of articulating the overall interests of indigenous peoples and local communities.

## 7.1. The Nature of Indigenous Collective Rights

The progressions of international actions to protect 'groups' have been fairly complex,<sup>16</sup> and in earlier decades, were largely based on domestic and regional initiatives to protect 'minorities'.<sup>17</sup> This notwithstanding, it has been submitted that the protection of diverse 'groups', usually categorized as minorities, has in fact been one of the oldest continuing concerns of international law.<sup>18</sup> As will be seen below, while these attempts to protect disadvantaged groups continue, the international community had wittingly or otherwise subsumed the distinct interests of indigenous groups and sought to provide blanket protection to them as 'minorities.' For whatever reason(s) that this approach was adopted, it seems to have been a gross mis-

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<sup>15</sup> See generally Ronald Dworkin, *Taking Rights Seriously* (1977) 150-205; Mark Tushnet, 'An Essay on Rights' (1984) 62 *Texas Law Review* 1363; Louis B. Sohn, 'The New International Law: Protection of the Rights of Individuals Rather than States' (1981) 32 *American University Law Review* 1; Louis Henkin, 'International Human Rights as "Rights"' (1979) 1 *Cardozo Law Review* 425; Jeremy Waldron, (ed), *Theories of Rights* (1984) 1-5; Wesley Hohefeld, 'Fundamental Legal Conceptions as Applied in Judicial Reasoning' (1913) 23 *Yale Law Journal* 16; Patrick Thornberry, *International Law and the Rights of Minorities* (1991) 25-52.

<sup>16</sup> See Josef L. Kunz, 'The Present Status of the International Law for the Protection of Minorities' (1954) 48 *American Journal of International Law* 282, 282-283; where the author submitted, at the time, that 'the international protection of minorities is, therefore, a strict and logical corollary of the principle of self-determination of nations.'

<sup>17</sup> See for instance Julius Stone, *Regional Guarantees of Minority Rights* (1933) 1-15. For attempts within some states to protect minority rights and the complexity involved, see generally C.A. Macartney, *National States and National Minorities* (1934); Robert G. Wirsing, *Protection of Minorities: Comparative Perspectives* (1981); Tore Modeen, *The International Protection of National Minorities in Europe* (1969) 1-25.

<sup>18</sup> See Thornberry above n 15, 1; P. De Azcárate, *League of Nations and National Minorities* (1945).

construction of the nature and function of indigenous societies, and manner of exercise of indigenous rights.

In the context of the present discussions, indigenous 'groups' do not fit into what Professor Balkin has described as 'status groups',<sup>19</sup> or any other group, where the hierarchical placing of the individual(s) confers 'undue entitlements', including advantages, rights or privileges in relation to the other members of the group.<sup>20</sup> In essence, while indigenous groups have mechanisms that maintain the cultural identity, social status and resource entitlements of their members, they are not usually structured to lend any credence to any form of negative social stratification within the groups. The term 'negative social stratification' is used here to indicate a structure within a social system(s) that permits the denial of certain entitlements to community members based on their presumed permanent inferior status in relation to other members of the community.<sup>21</sup> This type of group scenario is exemplified by the socially stratified caste systems that are practiced in several countries around the world.<sup>22</sup>

In contrast to groups that are structurally stratified, or those that determine their members' entitlements based on extraneous factors, the rights available within indigenous groups are based and attributed on their historically

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<sup>19</sup> See Jack M. Balkin, 'The Constitution of Status' (1997) 106 *Yale Law Journal* 2313, 2321.

<sup>20</sup> The term 'undue entitlements' has been used here to acknowledge that within indigenous communities, certain rights and privileges are nevertheless reserved for elders and community leaders. However, these entitlements must be seen by the members to be equitable and not oppressive, and passes on to the next set of elders on the death of the existing leaders.

<sup>21</sup> The terms 'negative social stratification' is used to effectively drive home the point being made. For discussions on the subject of social stratification, see generally Reva B. Siegel, 'Discrimination in the Eyes of the Law: How "Color Blindness" Discourse Disrupts and Rationalizes Social Stratification' (2000) 88 *California Law Review* 77; Richard McAdams, 'Cooperation and Conflict: The Economics of Group Status Production and Race Discrimination' (1995) 108 *Harvard Law Review* 1003.

<sup>22</sup> See generally, Janice Jiggins, *Caste and the Family in the Politics of the Sinhalese, 1947-1976* (1979) 1-7; Davis Marvin, *Rank and Rivalry: The Politics of Inequality in Rural West Bengal* (1983) 1-10. The caste system is quite complex especially to persons outside the communities where the practice is rife. For an attempt at simplifying the caste systems, see José Colaço, 'The Caste System of India' at <<http://www.colaco.net/1/caste.htm>> at 7 May 2006.

entrenched communal ties.<sup>23</sup> These communal ties incorporate varying criteria for rights attribution within these communities while also acting as a defining constituent of the identity of the members.<sup>24</sup> The overall implication of these communal ties has been described by Lador-Lederer as providing a relationship based on 'paramount emotional group affinity'<sup>25</sup> among the members of the concerned local communities. In that position of affinity, it is submitted that members' destinies are perpetually intertwined.<sup>26</sup> This is one of the defining attributes that distinguish the element of collectivity entrenched within indigenous group rights and those of other minority groups.

There is, therefore, an imperative to distinguish between indigenous groups and other minority groups for purposes of rights attribution and protection. For one, while other minority groups might require protection in the exercise of their civic rights, for instance, the rights to assembly and worship, indigenous group rights are tied with their very survival as groups. Furthermore, in terms of structure, indigenous rights are complex and interconnected, and consequently, it might be impossible to compartmentalize them for purposes of individual protection. Again, with some minority groups, while it is possible for members to opt in or out of the group, as will be seen below, indigenous group memberships are permanent and not affected by incidences of physical migration. This does not stop a group member from refusing, for instance, to exercise rights and privileges conferred by group membership. In all, there is no denying the fact that there are common traits across indigenous group and other minority groups, but such traits are not deep-rooted enough to suggest structural similarities between them.

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<sup>23</sup> See Terence Dougherty, 'Group Rights to Cultural Survival: Intellectual Property Rights in Native American Cultural Symbols' (1998) 29 *Columbia Human Rights Law Review* 355, 364.

<sup>24</sup> Ibid 358-359, citing Michael Sandel, *Liberalism and the Limits of Justice* (1982).

<sup>25</sup> See J.J. Lador-Lederer, *International Group Protection: Aims and Methods in Human Rights* (1968) 15.

<sup>26</sup> Ibid.

## 7.2. Articulating Indigenous Group Rights

The importance of recognizing and protecting indigenous group rights rests on the fact that under certain circumstances it is impossible to adequately address indigenous interests within the confines of individual private rights.<sup>27</sup> In such circumstances it becomes clear that the custodial and guardianship roles usually entrusted to certain members within indigenous and local communities do not confer exclusive private rights on such persons, except where the communities so desire. The collective interests of the local communities remain unencumbered by the act of entrusting such rights to an individual, family or kindred to exercise on their behalf. This presupposes that any advantages or disadvantages that affect the interests of the communities in the subject matter in question would also be borne collectively. This shared normative understanding is therefore one of the key elements of indigenous collectivity.<sup>28</sup>

A good example to illustrate some elements of indigenous collectivity is the Australian case of *Bulun Bulun v. R & T Textiles Pty. Ltd*<sup>29</sup> discussed in the last chapter. In this case, the applicant (Mr. Bulun Bulun) acknowledged that proprietary title to the artwork bearing the breached copyright vested collectively in his community. In such a case, an insistence on the identification of the specific rights or entitlements of individual community members in relation to such work of art would have been futile. Like indigenous groups themselves, the collective rights of indigenous and local communities are also autochthonous or organic in nature and are therefore intertwined with the communality and cultural identity of the communities

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<sup>27</sup> See Dougherty above n 23, 364.

<sup>28</sup> See Michael McDonald, 'Should Communities Have Rights?: Reflection on Liberal Individualism' (1991) 4 *Canadian Journal of Law and Jurisprudence* 217, 218-219.

<sup>29</sup> (1998) 157 ALR 193. Refer to the discussions on this case in the last chapter.

concerned.<sup>30</sup> Therefore, to attempt a dissection of these rights into their individual distinct components, except where individual rights exist within a community, will achieve little. This fact was well appreciated by Von Doussa J in the *Bulun Bulun* case, where he awarded damages for 'cultural harm' to members of the community concerned, because though their collective rights in the artwork were temporarily assigned to a community member, the proprietary interests in the subject matter remained active.

The unique nature of indigenous collective rights essentially makes it imperative that such rights must be preserved and protected in the form they exist within the respective local communities.<sup>31</sup> Another germane consideration is the effectiveness of such indigenous rights. Considering that indigenous rights are exercised more effectively as collective rights and that the effective exercise of such rights is deeply implicated in the socio-cultural and economic survival of the respective indigenous communities,<sup>32</sup> then the imperative for their protection as such becomes clearer.

Notwithstanding the above justifications for indigenous collective rights, it is necessary to emphasize that there is usually a misnomer in treating the rights of indigenous peoples and local communities simply as minority rights.<sup>33</sup> Even though there are areas of similarity between the two, minority rights and indigenous collective rights are not co-terminus, and in several instances have different mechanisms for attributing entitlements to members.<sup>34</sup> A

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<sup>30</sup> See generally Marina Hadjioannou, 'The International Human Rights to Culture: Reclamation of the Cultural Identities of Indigenous Peoples Under International Law' (2005) 8 *Chapman Law Review* 201.

<sup>31</sup> See generally Rainer Hofmann, 'Minority Rights: Individual or Group Rights?' (1997) 40 *German Yearbook of International Law* 356, 359-371.

<sup>32</sup> See Dougherty above n 23, 364.

<sup>33</sup> See Yoram Dinstein, 'Collective Human Rights of Peoples and Minorities' (1976) 25 *International and Comparative Law Quarterly* 102, 103; arguing that collective 'human rights' retain their characters as individual rights.

<sup>34</sup> For instance, the fact that gay groups are regarded as minorities signifies that the historical affinity that binds indigenous peoples together makes indigenous groups different in that material particular from gay groups, which, to an extent, have no permanent character. For discussions of gay issues as minority issues, see generally John G. Culhane, 'Uprooting the



related issue is the misnomer of treating the whole gamut of indigenous collective rights simply as 'human rights'. While this work does not entirely object to such a classification, it is submitted that there must be a distinction between, for example, everyone's right to practice a religion, which imports elements of individual discretion, and the collective rights of indigenous communities over their resources, which inhere in the communities. Despite this assertion, just like the discussions on group rights, the boundaries of minority rights are also generally complex and it requires careful delineation to effectively navigate these issues. This necessitates a detailed articulation of minority rights to ensure some measure of clarity on the import of such rights.

### 7.3. Minority Rights in International Law

For several decades now, international law has struggled to deal effectively with the rights of minorities on one hand and the rights of indigenous peoples and local communities on the other.<sup>35</sup> The importance of determining the scope and real beneficiaries of minority rights is predicated on the fact that without such determination, some groups, such as indigenous groups would end up relying on shaky premises to assert their rights as 'minorities.' In this way, there is no possibility that indigenous rights would be effectively exercised, and it becomes imperative to demarcate the boundaries of minority rights, as against indigenous rights. However, this task is complicated by the lack of any generally acceptable definition of the term 'minority' in international law.

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Arguments Against Same-Sex Marriages' (1999) 20 *Cardozo Law Review* 1119; Larry E. Ribstein, 'A Standard Form Approach to Same Sex Marriage' (2005) 38 *Creighton Law Review* 309.

<sup>35</sup> See Justin Desautels-Stein, 'National Identity and Liberalism in International Law: Three Models' (2005) 31 *North Carolina Journal of International Law and Commercial Regulation* 463, 487.

Despite the fact the minority question was one of the concerns of the League of Nations there was no attempt to define the term 'minorities' or 'minority communities'.<sup>36</sup> Later initiatives by the United Nations and some regional efforts were also not successful in arriving at any generally acceptable definition.<sup>37</sup> Early on however, the Permanent Court of International Justice (PCIJ) of the League of Nations in its advisory opinion on the emigration of Greco-Bulgarians defined 'communities' as:

a group of persons living in a given country or locality having a race, religion, language and tradition in a sentiment of solidarity, with a view to preserving their traditions, maintaining their form of worship, ensuring the instruction and upbringing their children in accordance with the spirit and traditions of their race and mutually assisting one another.<sup>38</sup>

This definition is specific and of limited application in the present context. This is because it was not addressing the definition of minorities *per se*, but was construing the meaning of 'communities' in article 6 of the 1919 *Reciprocal Convention Between Greece and Bulgaria Respecting Reciprocal Emigration*.<sup>39</sup> Even though this case involved citizens from two countries, at that time in history, concerns about protecting minority rights were largely domestic, and were mostly targeted at European ethnic and religious minorities.<sup>40</sup> This situation apparently explains why both the U.N. Charter in 1945 and the 1948 *Universal Declaration of Human Rights* do not contain any provisions that expressly

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<sup>36</sup> See Jelena Pejic, 'Minority Rights in International Law' (1997) 19 *Human Rights Quarterly* 666, 666-667.

<sup>37</sup> Ibid. One regional exception was article 14 of the *European Convention on Human Rights and Fundamental Freedoms* 1950, which made reference to 'association with national minority' as a ground for discrimination. It has been submitted that this provisions cannot stand on its own as a group right, as it needs the breach of individual rights under the Convention to be activated. See Ibid. citing Ferdinando Albanese, 'Ethnic and Linguistic Minorities in Europe' (1991) 11 *Yearbook of European Law* 325.

<sup>38</sup> See Advisory opinion on the Interpretation of the Convention Between Greece and Bulgaria Respecting Reciprocal Emigration, 'Question of the Communities' PCIJ, Series B, No. 17, July 31 1930 at <<http://www.worldcourts.com/pcij/eng/decisions.htm>> at 10 May 2006.

<sup>39</sup> The Convention is Annex 1 to the opinion of the Court.

<sup>40</sup> See Desautels-Stein above n 35, 487; citing Francesco Capotorti, *Study on the Rights of Persons Belonging to Ethnic, Religious and Linguistic Minorities* (1991) 1- 4.

protect the collective rights of minority groups.<sup>41</sup> This does not, however, signify a total lack of interest by the U.N. in minority matters even though the world body agreed that minority issues were complex, delicate, and have peculiarities in different countries.<sup>42</sup>

The protection of minority rights was given an added impetus with the adoption of the *International Covenant on Civil and Political Rights* (the Covenant) in 1966. At the time of the discussions on the draft provisions of the Covenant, it was evident that states were willing to provide a degree of recognition to minority rights.<sup>43</sup> However, the couching of article 27 of the Covenant indicates that states were only inclined to allow the recognition of limited rights.<sup>44</sup> In line with this sentiment, article 27 of the Covenant provides that:

In those States in which ethnic, religious or linguistic minorities exist, persons belonging to such minorities shall not be denied the right, in community with the other members of their group, to enjoy their own culture, to profess and practice their own religion, or to use their own language.

This provision has been variously criticized as being at best restrictive and vague in helping to resolve the major issues in the minority rights discourse.<sup>45</sup>

In considering these criticisms two major areas of concern deserve specific mention. The first criticism is that the use of the phrase 'in those states in which...minorities exist...' imports an element of discretion for states to declare whether or not there are minorities within their territories deserving protection. This loophole was exploited by France to hold that article 27 of the Covenant does not apply within the French Republic. The French government

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<sup>41</sup> Ibid; citing Hurst Hannum, *Autonomy, Sovereignty, and Self-Determination* (1990) 58.

<sup>42</sup> See Francesco Capotorti, 'The Protection of Minorities Under Multilateral Agreements on Human Rights' in Satish Sandra (ed), *Minorities in National and International Laws* (1985) 218, 227.

<sup>43</sup> See Pejic above n 36, 668.

<sup>44</sup> Ibid.

<sup>45</sup> Ibid.

argued that since French Law prohibits distinctions between citizens on grounds of origin, race or religion, therefore, article 27 is inapplicable in France.<sup>46</sup> This is because to classify any group as minority would amount to discrimination against such a group.<sup>47</sup> In a similar fashion, during the draft debate on article 27, Brazil, Chile and other Latin American countries argued that the 'formation' of minority groups within their territories would seriously impede their efforts at strengthening national unity.<sup>48</sup> The implication is that these countries do not consider their indigenous populations as minorities. Leaving aside the issue whether the positions of the French and other countries were correct or not, their actions exposed the malleability of the article 27 provision.

The second area of concern relates to the limiting of protection under article 27 to persons belonging to ethnic, religious or linguistic minorities. The provision leaves the decision as to whether citizenship is a precondition for protection to respective states.<sup>49</sup> Furthermore, there is no indication whether groups, for instance indigenous groups, are to benefit from such protection in their own rights.<sup>50</sup> It could be argued that the fact that the U.N. Working Group on Indigenous Populations was established under the authority of the U.N. Sub-Commission on the Prevention of Discrimination and Protection of Minorities, confirms that indigenous groups are to be treated as minorities.<sup>51</sup> Whatever the case, there are still persistent concerns that a clearer indication of who is entitled to minority protection and what circumstances is imperative.

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<sup>46</sup> Ibid. Citing the Consideration of Reports Submitted by States Parties Under Article 40 of the Covenant: France, U.N. GAOR, Human Rights Committee, 26 August 1987.

<sup>47</sup> Ibid.

<sup>48</sup> See Thornberry above n 15, 154 -155.

<sup>49</sup> Ibid.

<sup>50</sup> Ibid.

<sup>51</sup> See Martin Geer, 'Foreigners in their Own Land: Cultural Land and Transnational Corporations-Emergent International Rights and Wrongs' (1998) 38 *Virginia Journal of International Law* 331, 348fn.

The above lack of clarity in the interpretation of article 27 of the Covenant gave rise to the Capotorti Report on the Rights of Persons Belonging to Ethnic, Religious and Linguistic Minorities in 1977. The Report intended to bring in more certainty into the debateable areas of article 27. In the Report a 'minority group' was defined as:

a group numerically inferior to the rest of the population of a state, in a non-dominant position, whose members-being nationals of the state-possess ethnic, religious or linguistic characteristics differing from those of the rest of the population, and show only if implicitly, a sense of solidarity, directed towards preserving their culture, traditions, religion or language.<sup>52</sup>

It is obvious that this definition, even if it was intended to cater for indigenous peoples as 'minorities,' which is doubtful, was inadequate and fell short of achieving such an objective. An alternate definition in 1985 by Jules Deschênes, another member of the U.N. Sub-Commission on Prevention of Discrimination and Protection of Minorities, also proved to be inadequate in addressing indigenous interests.<sup>53</sup> A few illustrations would be useful.

If the Capotorti definition is meant to include indigenous peoples as minorities, then, the phrase 'numerically inferior to the rest of the population...' actually excludes several indigenous groups around the world. For instance, in countries like Bolivia,<sup>54</sup> and to a lesser extent, Guatemala<sup>55</sup>

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<sup>52</sup> See Francesco Capotorti, Special Rapporteur UN Sub-Commission on Prevention of Discrimination and Protection of Minorities, Report on the Right of Persons Belonging to Ethnic, Religious and Linguistic Minorities 1977; in Thornberry above n 15, 6.

<sup>53</sup> For instance Jules Deschênes defined a minority group as: 'a group of citizens of a state, constituting a numerical minority and in non-dominant position in that state, endowed with ethnic, religious or linguistic characteristics which differ from those of the majority of the population, having a sense of solidarity with one another, motivated, if only implicitly, by a collective will to survive, and whose aim is to achieve equality with the majority in fact and in law.' See Thornberry above n 15, 7.

<sup>54</sup> See Human Resources Development and Operations Policy: 'Indigenous People and Socio-economic Development in Latin America: The Case of Bolivia' HRO Dissemination Notes No 12, 30 August 1993, at <http://www.worldbank.org/html/extdr/hnp/hddflash/hcnote/hrn011.html> at 12 May 2006.

<sup>55</sup> See Human Resources Development and Operations Policy: 'Indigenous People in Latin America' HRO Dissemination Notes No 8 June 7 1993 at 12 May 2006 at

and Ecuador,<sup>56</sup> indigenous peoples constitute the majority either solely or as mixed peoples. Secondly, the phrase 'in a non-dominant position' is vague at best. For instance, since Bolivia elected an indigenous person as President in December 2005, could it be said that Bolivian indigenous peoples are now in a dominant position and outside the confines of minority definition? While it could still be argued that the issue of dominance or otherwise is a matter of fact to be determined in specific cases, it is submitted that it is also inadvisable to predicate an important issue as minority protection on internal dynamics of states' domestic politics.

## 7.4 Indigenous Rights and Minority Rights

The preceding discussions have highlighted the difficulty facing the international community in effectively articulating minority rights.<sup>57</sup> This has apparently contributed to the situation where states tend to address the rights of indigenous peoples and those of minorities synonymously. For instance, even though the 1992 *Declaration on the Rights of Persons Belonging to National or Ethnic, Religious and Linguistic Minorities*<sup>58</sup> avoids defining who constituted the 'minorities', the provisions are so broad that both indigenous and non-indigenous populations could rely on them. On this point Alfredsson has submitted that states usually do not want precise definitions of terms in

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<<http://www.worldbank.org/html/extdr/hnp/hddflash/hcnote/hrn007.html>> at 12 May 2006.

<sup>56</sup> See 'Ecuador Culture and Ecuadorian People' at

<[http://www.ecuadorexplorer.com/html/people\\_and\\_culture.html](http://www.ecuadorexplorer.com/html/people_and_culture.html)> at 12 May 2006.

<sup>57</sup> Issues surrounding the enforcement of minority rights are outside the confines of the present work. However, for discussions on this, see generally Hurst Hannum, *Guide to International Human Rights Practice* (1984); Tore Modeen, *The International Protection of National Minorities in Europe* (1969); Louis Sohn and Thomas Buergenthal, *International Protection of Human Rights* (1973); Robert G. Wirsing, *Protection of Minorities: Comparative Perspectives* (1981).

<sup>58</sup> The U.N. *Declaration on Rights of Persons Belonging to National, Ethnic, Religious and Linguistic Minorities* was adopted by General Assembly Resolution 47/135, 18 December 1992. For the text of the Declaration see <[http://www.unhchr.ch/html/menu3/b/d\\_minori.htm](http://www.unhchr.ch/html/menu3/b/d_minori.htm)> at 13 May 2006.

international instruments as a tactical device to allow their own interpretations of the provisions during implementation.<sup>59</sup>

It is submitted that any ambiguities or tensions between indigenous collective rights and minority rights are unnecessary and avoidable. The earlier perceived difficulty in articulating these rights separately could be traced partly to the unwillingness by states to grant 'corporate status' to diverse groups for fear that such rights could be exercised to demand autonomy for such groups. According to Thornberry, states consider collective rights as 'a Pandora's box of dangers to the sovereign state.'<sup>60</sup> In the circumstances, states appear comfortable with the ambiguity that exists, allowing them to decide on case-by-case basis when or not to allow the exercise of collective rights.<sup>61</sup> While this practice allows states to maintain power and privilege over all those considered minorities within their territories, it muddles efforts aimed at conceptualizing indigenous collective rights as distinct from other minority claims.<sup>62</sup> It appears easier for states to treat indigenous claims as any other minority or human rights claims,<sup>63</sup> instead of recognizing and addressing the peculiarities inherent in indigenous claims.

The fact that indigenous communities are treated as minorities has resulted in a situation where indigenous peoples have spent considerable energy extricating themselves from this grouping, and asserting their distinct socio-

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<sup>59</sup> See Gudmundur Alfredsson, 'Human Rights, Fundamental Freedoms and the Rights of Minorities: Essential Components of Democracy, Strasbourg Conference on Parliamentary Democracy, No. 111 (8) 1991, 9 in Athanasia A. Spiliopoulou *Justifications of Minority Protection in International Law* (1997) 50-51.

<sup>60</sup> See Thornberry above n 15, 290.

<sup>61</sup> See Thomas W. Simon, 'Minorities in International Law' (1997) 10 *Canadian Journal of Law and Jurisprudence* 507, 511; citing Robert D. Kaplan, *Balkan Ghosts* (1993) 240.

<sup>62</sup> Ibid.

<sup>63</sup> See Discrimination Against Indigenous Peoples: Analytical Compilation of Observations and Comments Received Pursuant to Sub-Commission Resolution 1988/18, Sub-Commission on the Prevention of Discrimination and Protection of Minorities, Commission on Human Rights, U.N. ESCOR, 41<sup>st</sup> Session, Agenda Item 13, U.N. Doc. E/CN.4/Sub.2/1989/33/Add.1 (1989), in Benedict Kingsbury, 'Reconciling Five Competing Conceptual Structures of Indigenous Peoples' Claims in International and Comparative Law' (2001) 34 *New York University Journal of International Law and Politics* 189, 193.

cultural identity. Treating indigenous communities simply as minorities misses the element about being 'indigenous' and its attendant distinct peculiarities.<sup>64</sup> The element of this indigeneity has been acknowledged by the U.N. *Convention on the Rights of the Child* 1989.<sup>65</sup> Article 30 of the Convention states in part, that 'in those States in which ethnic, religious or linguistic minorities or *persons of indigenous origin exist*,<sup>66</sup> a child belonging to such a minority or *who is indigenous*<sup>67</sup> shall not be denied the rights...' The Convention acknowledges the distinction and clearly separates persons of indigenous origin from persons belonging to other minorities. This distinction is crucial to a holistic and effective articulation of indigenous rights.

Although the U.N. Human Rights Committee in *Ominayak v. Canada*,<sup>68</sup> *Lovelace v. Canada*<sup>69</sup> and *Kitok v. Sweden*<sup>70</sup> interpreted article 27 of the ICCPR expansively to accommodate indigenous claims, the fact that a country like France still asserts that there are no French minorities that merit international protection, exposes the obvious shortcoming in relying on article 27 provision to adjudicate indigenous claims.<sup>71</sup> A similar situation would be avoidable under a framework that recognizes indigenous collective rights as such, while recognizing indigenous groups as distinct groupings. This would in effect

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<sup>64</sup> Ibid 204.

<sup>65</sup> The U.N. *Convention on the Rights of the Child* 1989, adopted and opened for signature 20 November 1989; (entered into force 2 September 1990). For the text of the Convention see <<http://www.unhchr.ch/html/menu3/b/k2crc.htm>> at 13 May 2006.

<sup>66</sup> Emphasis added.

<sup>67</sup> Emphasis added.

<sup>68</sup> See Kingsbury above n 63, citing *Ominayak v. Canada*, U.N.GAOR, 45<sup>th</sup> Session, Supp. No.40 Annex 9 at 27, U.N. Doc. A/45/40 (1990).

<sup>69</sup> Ibid. citing *Lovelace v. Canada*, U.N.GAOR, 36<sup>th</sup> Session, Supp. No.40 Annex 18 at 166, U.N. Doc. A/36/40 (1981).

<sup>70</sup> Ibid. citing *Kitok v. Sweden*, U.N.GAOR, 43<sup>rd</sup> Session, Supp. No.40 Annex 7 at 229, U.N. Doc. A/43/40 (1988). Courts in some domestic jurisdictions have also treated indigenous claims as incorporating and surpassing mere human rights claims. See for instance *Delgamuukw v. British Columbia* (1997) 3 S.C.R. 1010; *Mabo v. Queensland* (No. 2) (1992) 175 C.L.R. 1.

<sup>71</sup> Ibid 203. See the decision in *Hopu and Bessert v. France*, U.N.GAOR, 52<sup>nd</sup> Session, Supp. No.40 at 70, U.N. Doc. A/52/40 (1997) where France asserted the same claim of non-existence of minorities within its territory, even though the U.N. Human Rights Committee used its ingenuity to circumvent such an assertion and made its finding. See Ibid 241-242.



obviate the need to rely on other mechanisms designed for the protection of minorities.

## 7.5. Dissecting the Collectivity in Indigenous Rights

The major problem in attempting to treat indigenous rights as minority rights is that most minorities groups do not lay claims to the level of intrinsic communality that comes naturally to indigenous and local communities.<sup>72</sup> It is this communality that forms the structural basis for the effective exercise of collective rights within indigenous communities. On the contrary, the conceptual formulation of minority rights in international law structures these rights as accessible primarily to individuals belonging to particular identifiable groups within a state.<sup>73</sup> A clear example would be the successive minority protections that have been provided for Jewish populations in several countries since the early 20<sup>th</sup> century.<sup>74</sup> Admittedly, it is possible that, in some cases, several individuals belonging to a minority group could enjoy minority rights simultaneously, giving a semblance of collective rights. However, assuming for present purposes, that 'minority rights' could be 'collective rights' properly so-called, then such collectivity would be predicated on the convergence of the individual interests of persons within the groups. This scenario still does not equate with indigenous collective rights that are primarily based on entrenched communality among community members, while permitting individual exercise of certain rights in given cases.

There is still another important essential characteristic of indigenous collectivity: indigenous collective rights do not stand alone, and are not

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<sup>72</sup> See Richard Herz, 'Legal Protection for Indigenous Cultures: Sacred Sites and Communal Rights' (1993) 79 *Virginia Law Review* 691, 697.

<sup>73</sup> See Desautels-Stein above n 35, 487, citing Peter Jones, 'Group Rights and Group Oppression' (1999) 7 *Journal of Political Philosophy* 353, 354.

<sup>74</sup> See Thomas W. Simon, 'Minorities in International Law' (1997) 10 *Canadian Journal of Law and Jurisprudence* 507, 508-510.

exercised in isolation, but have attendant responsibilities due from the members to their communities. In essence, within indigenous communities collective rights and entitlements beget collective obligations and responsibilities in several facets of their daily lives.<sup>75</sup> Over the years, some international instruments have shown appreciation for characteristic. For instance, article 34 of the U.N. *Declaration on the Rights of Indigenous Peoples* 1994<sup>76</sup> states that 'indigenous peoples have the collective right to determine the responsibilities of individuals to their communities.'<sup>77</sup> A deeper appreciation of the nature of this rights-responsibilities relationship within indigenous and local communities is necessary in order to simplify the discussions below on the structure of indigenous group rights.

Within indigenous and local communities, the rights-duties relationship is based on the perception that actions by community members ultimately aid group survival. This implies that rights and duties are exercised in such a manner that the communities believe would enhance their socio-cultural and material interests. For example, when using their resources, indigenous peoples also have the concomitant duty to preserve their ecosystems for future generations. Two major trends could be gleaned from this brief explanation: the first is that indigenous peoples have a right to protect their socio-cultural and material well-being. The second is that they have a duty to use resources in sustainable ways to ensure inter-generational perpetuation. Any effective indigenous right regime must reflect these rights and duties.

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<sup>75</sup> The broader idea for this point is from James A. Anaya, 'The Rights of Indigenous Peoples and International Law in Historical and Contemporary Perspective' (1989) *Harvard Indigenous Law Symposium* 191.

<sup>76</sup> Adopted at the 45<sup>th</sup> Session of the U.N. Sub-Commission on the Prevention of Discrimination and Protection of Minorities 1994. For the text of the Declaration, see <<http://www1.umn.edu/humanrts/instree/declra.htm>> at 15 May 2006.

<sup>77</sup> There are also similar provisions that confer duties on individuals in articles 27, 28 and 29 of the *African Charter of Human and Peoples Rights* 1981. For the text of the African Charter, see <<http://www1.umn.edu/humanrts/instree/z1afchar.htm>> at 15 May 2006.

## 7.6. The Content of Indigenous Collective Rights

In the present context, indigenous group rights need to be structured on the relationships between indigenous and local communities and their surrounding environment. In this instance, indigenous peoples' relationships to their lands assume a central significance because, in most cases, land forms the very essence of indigenous self-definition and cultural survival.<sup>78</sup> This makes it imperative that in making any attempt to protect indigenous cultural and resource rights, there is a clear understanding of the relationships between indigenous communities and their lands.<sup>79</sup> These relationships are also crucial in articulating a clearer understanding of their spiritual beliefs, customs and traditions.<sup>80</sup>

The international community has recognized the special relationships between indigenous communities and their socio-cultural environment. For instance, article 13(1) of the *ILO Convention (No. 169) Concerning Indigenous and Tribal Peoples in Independent Countries* 1989<sup>81</sup> mandates states to 'respect the special importance for the cultures and spiritual values of the peoples concerned of their relationship with the lands... *and in particular the collective aspects of this relationship*.'<sup>82</sup> Furthermore, article 5(a) of the Convention provides that 'the social, cultural, religious and spiritual values and practices of these peoples shall be recognised and protected...' However, despite this recognition, attempts to ensure general acceptability of the collective nature of

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<sup>78</sup> See Geer above n 51, 349.

<sup>79</sup> See Robert A. Williams Jr., 'Encounters on the Frontiers of International Human Rights Law: Redefining the Terms of Indigenous Peoples' Survival in the World' (1990) *Duke Law Journal* 660, 691-692.

<sup>80</sup> See Geer above n 51, 350; citing Study of the Problem of Discrimination Against Indigenous Populations, U.N. Commission on Human Rights, Sub-Commission on the Prevention of Discrimination and Protection of Minorities, 36<sup>th</sup> Session, Provincial Agenda Item 11, at 141, U.N.Doc. E/CN.4/Sub.2/1983/21/Add.4 (1983) (Jose R. Martinez Cobo, Special Rapporteur).

<sup>81</sup> Adopted at the 75<sup>th</sup> Session of the General Conference of the International Labour Organization, 27 June 1989 (*entered into force* September 1991). For the text of the Convention, see <<http://www.unhchr.ch/html/menu3/b/62.htm>> at 16 May 2006.

<sup>82</sup> Emphasis added.

indigenous collective rights have not been met with much enthusiasm by states.

One of the latest attempts by an international tribunal to recognize such collective indigenous rights was in *Awas Tingni v. Nicaragua*.<sup>83</sup> In this case, the petition of the Mayagna Awas Tingni peoples took the form of a human rights violations complaint to the Inter-American Human Rights Commission, which then referred the matter to the Inter-American Court of Human Rights. The crux of the petition was that their rights to land and resources were being violated by the state in allowing loggers onto their lands without their permission.<sup>84</sup> In highlighting the complexity of indigenous cultural and resource matters in domestic arena, the Nicaraguan government vehemently opposed the application of the Awas Tingni. This is despite the fact the Constitution of Nicaragua guaranteed the communal land ownership rights of the Awas Tingni peoples, which fact was upheld by the Inter-American court.<sup>85</sup> This underlies the need for an international regime that would specifically guarantee such collective and resource rights of indigenous peoples that could be enforced domestically.<sup>86</sup>

Notwithstanding the above comments, it appears that the lethargy on the part of states to recognize and implement indigenous collective rights is based on the perceived uncertainty as to the content of such rights. It should be noted that some scholars have also expressed this concern. According to Professor Brownlie, 'the recognition of group rights, more especially when this is related to territorial rights and regional autonomy, represents the practical

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<sup>83</sup> See the details on this case in James S. Anaya and Claudio Grossman, 'The Case of Awas Tingni v. Nicaragua: A New Step in International Law of Indigenous Peoples' (2002) 19 *Arizona Journal of International and Comparative Law* 1.

<sup>84</sup> Ibid 1-4. Also see generally James S. Anaya, 'International Human Rights and Indigenous Peoples: The Move Toward the Multicultural States' (2004) 21 *Arizona Journal of International and Comparative Law* 13.

<sup>85</sup> See Anaya and Grossman above n 83, 12-14.

<sup>86</sup> It must be said that attempts by the Awas Tingni peoples to litigate this matter in domestic courts proved quite difficult.

and internal working out of the concept of self-determination.<sup>87</sup> This view is also shared by Professor Falk, in arguing that, as long as indigenous communities 'centre their grievances around encroachments upon their collective identity...', they constitute 'a competing nationalism within...the state.'<sup>88</sup> This need not be so: collective resource rights should not be seen as synonymous with political self-determination of indigenous peoples, as some scholars argue.<sup>89</sup>

For the present purposes, the content of indigenous collective rights articulates only the rights of indigenous and local communities to their cultural practices and resources. The rights being projected in this instance are distinct from the web of ubiquitous 'human rights'.<sup>90</sup> The recognition of collective cultural and resource rights would provide indigenous and local communities with the legal framework to protect their resources as distinct peoples, that is, as against the general human rights and minority regimes. Arguably, that there are already numerous international instruments that could cater for such cultural and resource rights of local communities without the need for further duplicity. Some of these instruments are considered below.

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<sup>87</sup> See Ian Brownlie, 'The Rights of Peoples in Modern International Law' in James Crawford (ed), *The Rights of Peoples* (1988) 1, 6.

<sup>88</sup> See Richard Falk, 'The Rights of Peoples (In Particular Indigenous Peoples)' in James Crawford (ed), *The Rights of Peoples* (1988) 17, 18.

<sup>89</sup> See generally Peter Manus, 'Sovereignty, Self-Determination and Environment - The Emerging Voice of Indigenous Peoples in International Law' (2005) 23 *Wisconsin International Law Journal* 553. Also, see for instance, Anaya and Grossman above n 83, 13-15.

<sup>90</sup> One of these is the 'right to development,' which is usually discussed in terms of collective rights even though the extent of such a right is still being debated. This trend has the tendency to confuse the clear articulation of indigenous collective rights. For discussions on indigenous peoples and the right to development see Jeremy Firestone, Jonathan Lilley and Isabel Torres de Noronha, 'Cultural Diversity, Human Rights and the Emergence of Indigenous Peoples in International and Comparative Environmental Law' (2005) 20 *American University International Law Review* 219.

### 7.6.1. Existing Instruments on Cultural and Resource Rights

There are several international instruments that include provisions that could be deemed to protect cultural rights in varying degrees. Even so, many of these provisions are not specifically targeted at indigenous and local communities but are general human rights provisions. For instance, article 15(1) of the *International Covenant on Economic Social and Cultural Rights* 1966 (the ICESCR), provides that 'everyone has the right to take part in cultural life.'<sup>91</sup> In a related provision, the *American Declaration on the Rights and Duties of Man* 1948<sup>92</sup> (American Declaration) provides in part, that, 'every person has the right to take part in the cultural life of the community, to enjoy the arts, and to participate in the benefits that result from intellectual progress...' Similarly, article 1(1)(2) of UNESCO's *Declaration on the Principles of International Cultural Cooperation* 1966 provides for peoples' rights to develop their cultures and for the need for respecting and preserving such cultures.<sup>93</sup>

The first point to make is that both the ICESCR and the American Declaration guarantee the rights of individuals to take part in cultural activities, but do not recognize their collective rights to the preservation and protection of such cultures. That fact could, however, be assumed as underlying the right to 'take part in cultural life' on the basis that culture is a group phenomenon. It is submitted that such an assumption would be wrong. This is because the above instruments were intended as general affirmation of individuals' rights not to be discriminated against in enjoying cultural activities. An exception to

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<sup>91</sup> This is in part a reproduction of article 27(1) of the *Universal Declaration of Human Rights* 1948. The ICESCR was adopted by the General Assembly of the U.N and opened for signature on 16 December 1966 (*entered into force* 3 January 1976). For the text of the ICESCR, see <[http://www.unhchr.ch/html/menu3/b/a\\_ceschr.htm](http://www.unhchr.ch/html/menu3/b/a_ceschr.htm)> at 17 May 2006.

<sup>92</sup> The *American Declaration on the Rights and Duties of Man* 1948 was adopted at the 9<sup>th</sup> Session of the Organization of American States (OAS) 1948. For the text of the Declaration see <<http://www1.umn.edu/humanrts/oasinstr/zoas2dec.htm>> at 17 May 2006.

<sup>93</sup> The *Declaration on the Principles of International Cultural Cooperation* 1966, was proclaimed at the 14<sup>th</sup> Session of UNESCO's General Conference 4<sup>th</sup> November 1966. For the text of the Declaration, see <[http://www.unhchr.ch/html/menu3/b/n\\_decl.htm](http://www.unhchr.ch/html/menu3/b/n_decl.htm)> at 20 May 2006.

the above could be the *Algiers Declaration of the Rights of Peoples* 1976;<sup>94</sup> which provides rights for peoples and possible guarantees and sanctions for their breach. However, this Declaration was a product of meeting of Non-governmental Organizations (NGOs) and even though cited in several scholarly works it has not been accorded much weight by the international community.<sup>95</sup>

Another instrument is the *African Charter on Human and Peoples Rights* 1981.<sup>96</sup> The Charter made several far-reaching provisions apparently aimed at encouraging the emergent states in Africa at the time it was negotiated. However, the major problem with this Charter is that it seeks to do 'everything for everybody' in dealing with 'human and peoples' rights, and in doing so appears to inter-change the use of the terms 'peoples' and states. For instance while article 21(1) provides in part, that 'all peoples shall freely dispose of their wealth and natural resources. This right shall be exercised in the exclusive interest of the people...' Article 21(4) provides in part, that 'States parties to the present Charter shall individually and collectively exercise the right to free disposal of their wealth and natural resources...' Articles 22 and 23 of the Charter are couched in similar terms.<sup>97</sup>

Finally the *Proposed American Declaration on the Rights of Indigenous Peoples* 1997<sup>98</sup> gives recognition to the collective rights of indigenous peoples. Article 2(2) provides that states recognize the 'right of indigenous peoples to

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<sup>94</sup> The *Algiers Declaration of the Rights of Peoples* 1976 adopted a group of NGOs, 4 July 1976. For the text of the Declaration, see

<[http://www.chr.up.ac.za/hr\\_docs/african/docs/other/other1.doc](http://www.chr.up.ac.za/hr_docs/african/docs/other/other1.doc)> at 20 May 2006.

<sup>95</sup> See the criticisms of this Declaration by professor Brownlie above n 87, 11-12; describing the Declaration as 'a work of high idealism and a fairly high level of abstraction.'

<sup>96</sup> The *African Charter on Human and Peoples' Rights* 1981, adopted 27 June 1981 (entered into force October 1986). For the text of the Charter, see

<<http://www1.umn.edu/humanrts/instree/z1afchar.htm>> at 20 May 2006.

<sup>97</sup> Professor Brownlie had argued that the Charter and the Algiers Declaration were part of the proliferation of 'new human rights' by anyone who can find an audience. Even with the imperfections in the Charter, it is doubtful whether the statement is totally correct. See Brownlie above n 87, 11.

<sup>98</sup> For the text of the *Proposed American Declaration on the Rights of Indigenous Peoples* 1997, see <<http://www.cidh.org/Indigenous.htm>> 20 May 2006.

collective action, to their cultures, to profess and practice their spiritual beliefs...' This provision is, however, subsumed under the first part of article 2(2) which provides for the 'collective rights that are indispensable to the enjoyment of the individual human rights of their members.' A clearer provision is in article 18 (1) and (3)(iii), which provides for legal recognition of the varied forms of indigenous control, use and ownership of land and property, including their 'collective communal rights over them.' These are obviously germane provisions even though the Declaration is still at the proposal stage.

In assessing the above instruments the major drawbacks appear to be their focus and the multiplicity of the subjects covered. For instance, only the Proposed American Declaration deals exclusively with indigenous issues, while the others are of general application. The fact that each of these instruments deals with political, economic, social, cultural, environmental and other issues is likely to contribute to the reluctance by states to adopt and ensure effective implementation of these instruments. A good example is ILO Convention 1989.<sup>99</sup> The Convention seeks to make far-reaching provisions in several areas pertaining to indigenous interests and this has meant that very few states have ratified the Convention.<sup>100</sup> Added to this is the irony that indigenous peoples themselves believe that the Convention does not express their wishes regarding their recognition as peoples, the issue of territories, nor does it deal effectively with issues of consent and control of their resources.<sup>101</sup> It has been argued that the Convention seems to channel its efforts into satisfying the economic and social concerns of industrial countries<sup>102</sup> but then equivocates in several areas that require effective protection of indigenous

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<sup>99</sup> See ILO Convention (169) *Concerning Indigenous and Tribal Peoples in Independent Countries* 1989 (entered into force 5 September 1991). For the text of the Convention, see <<http://www.unhchr.ch/html/menu3/b/62.htm>> at 20 August 2006.

<sup>100</sup> Refer to this point on the section on ownership rights in chapter four of this work.

<sup>101</sup> See Gerard Schulting 'ILO Convention 169: Can It Help' at <<http://saiic.nativeweb.org/ayn/schulting.html>> at 18 May 2006.

<sup>102</sup> See John Woodliffe, 'Biodiversity and Indigenous Peoples' in Michael Bowman and Catherine Redgwell (eds), *International Law and the Conservation of Biological Diversity* (1996) 261.



interests.<sup>103</sup> An example is the qualification under article 1(3) to the use of the word 'peoples' in the Convention.<sup>104</sup>

Overall, however, the provisions of the above instruments, as insufficient as they may be in addressing the specific collective resource interests of local communities, have added impetus to the need for a global regime to legitimize indigenous collective resource rights. Most of the existing international and regional instruments, bogged down by the import of their provisions on indigenous self-determination, have not able to achieve this objective. In addition, most fail to provide for substantive protection of indigenous rights, except that states are required to 'respect and recognize' these rights. It is submitted that 'respect and recognition' are peripheral considerations, and are only prelude to the fundamental issue of substantive protection.

To protect indigenous knowledge systems and resource rights, this work proposes a *sui generis* protection system that will be backed by an international instrument that supports collective indigenous rights. The structure of this proposed regime is discussed below.

## **7.7. Structuring Indigenous Collective Cultural and Resource Rights**

The rights being proposed in this chapter for local communities would be structured as 'indigenous cultural and resource rights.' In doing this, the difficulty usually encountered in defining the concept of 'culture' is

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<sup>103</sup> See Geer above n 51, 366.

<sup>104</sup> It provides that 'the use of the term 'peoples' in this Convention shall not be construed as having any implications as regards the rights which may attach to the term in international law.' The question then is: why was the term 'peoples' used in the Convention if it had to be qualified in this manner?

acknowledged and appreciated.<sup>105</sup> For the present purposes, culture is taken to mean the 'totality of the knowledge and practices, both intellectual and material' of respective local communities.<sup>106</sup> It includes all of their physical and intangible traditional practices, family rules and techniques, and all customary practices including fishing and hunting rights and folkloric traditions.<sup>107</sup> On the other hand, the term 'indigenous resources' represents indigenous lands and surrounding ecosystems. It has been acknowledged internationally that land within indigenous parlance encompasses the entire total environment of the lands, air, waters, coastal seas, sea-ice, flora and fauna and other resources...<sup>108</sup>

The protection of these rights is crucial to indigenous and local communities because resource rights are central to their existence. Recalling the discussions in chapter two of this work on the interconnection among indigenous lands, property, resources, and culture, any protective system for resource interests must address the issue holistically. In this respect, this work proposes an *International Convention on Indigenous Cultural and Resource Rights*.

The choice of 'cultural and resource rights' is based on the fact that such rights incorporate the whole essence of indigenous life. Furthermore, it is an attempt for clarity in the terminology and scope for indigenous knowledge protection. The terms 'indigenous knowledge' and 'folklore' have been used for this purpose. However, while they could effectively incorporate knowledge and culture, they seem to be limited when applied to indigenous resources and lands. In the present context, therefore, while indigenous

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<sup>105</sup> The difficulties inherent in defining culture are discussed in Cynthia A. Savage, 'Culture and Mediation: A Red Herring' (1996) 5 *American University Journal of Gender and the Law* 269; John Frohnmayer, 'Should the United States Have a Cultural Policy?' (1993) 38 *Villanova Law Review* 195.

<sup>106</sup> See Lyndel V. Prott, 'Cultural Rights as Peoples' Rights in International Law' in Crawford above n 88, 93-94.

<sup>107</sup> Ibid.

<sup>108</sup> See generally Osvaldo Kreimer, 'Indigenous Peoples' Rights to Land, Territories and Natural Resources: A Technical Meeting of the OAS Working Group' (2003) 10 *Human Rights Brief* 13. See also articles 25 and 26 of the U.N. *Draft Declaration on the Rights of Indigenous Peoples* 1994.

knowledge systems are subsumed under 'culture', their 'lands and ecosystems' are subsumed under resources, therefore the term indigenous cultura and resource rights. The protection of the cultural and resource rights of local communities will effectively deal with the issue of biopiracy, as well as the protection of other indigenous cultural expressions.

Another factor that supports the choice of 'cultural and resource rights' is that there is consensus within the international community that the enjoyment of indigenous cultures, and the peoples' relationships to their lands, can only be effective when exercised collectively. This understanding also exists within domestic jurisdictions. For instance, as early as 1893, the U.S. Court of Claims articulated some essential general elements of these rights in *Journeycake v. Cherokee Nation*, when it held:

The distinctive characteristic of [tribal] property is that every member of the community is an owner of it as such. He does not take as heir, or purchaser, or grantee; if he dies his right of property does not descend, if he removes from the community it expires; if he wishes to dispose of it he has nothing which he can convey; and yet he has a right of property in the lands...and his children after him will enjoy all that he enjoyed, not as heirs but as communal owners.<sup>109</sup>

Added to the above, cultural and resource rights could be effective in addressing indigenous survival and welfare, while not importing the underlying tension that has characterized the equation of the exercise of collective rights with political self-determination. Issues relating to self-determination, as important as they are to indigenous groups, should be pursued via other fora. This is principally because, experience has shown that efforts to address issues relating to cultural, resource and political interests of indigenous communities in the same international or regional instruments often result in a situation where a stalemate in one issue stalls the rest. For instance, the stalemate at the U.N. on the import of the peoples' right to self determination in the *Draft Declaration on the Rights of Indigenous Peoples*

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<sup>109</sup> See *Journeycake v. Cherokee Nation* 28 Ct. Cl. 281, 302 (1893), affirmed in 155 U.S. 196 (1894) in John Moustakas, 'Group Rights in Cultural Property: Justifying Strict Inalienability' (1989) 74 *Cornell Law Review* 1179, 1192.

1994<sup>110</sup>, has effectively stalled the adoption of a final Declaration, and in effect, the adoption of all other provisions.

The recognition and adoption of indigenous cultural and resource rights would affirm indigenous group identity and collective interests as defined by the members' participation in their communities' cultural activities.<sup>111</sup> In such instances, the implication is that each member's individual rights and interests are primarily subordinated to the interests of the group.<sup>112</sup> Apart from the fact that the exercise of these rights imports an element of mandatory collectivity that effectively serves indigenous interests, protecting such rights also protects the peoples' relationships with their habitat and living ecosystem, and eventually their primary basis of cultural identification.<sup>113</sup>

One question that might be raised in opposition to this proposal is: what would be the basis for protecting the cultural practices of indigenous and local communities if other non-indigenous communities also have their cultural practices and do not demand such exclusive rights?

The basis for protecting indigenous cultural and resource rights is that, even though culture serves primarily to foster the group survival of indigenous communities, when dealing with non-indigenous entities, elements of these cultures assume external characteristics that could be likened to those of conventional property.<sup>114</sup> This implies that community members' participation in the nurturing, or, in some cases, generating aspects of these cultural products, imports rights that are analogous to those conferred by

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<sup>110</sup> For the text of the *Draft Declaration on the Rights of Indigenous Peoples* 1994, see <<http://www.cidh.org/Indigenous.htm>> at 18 August 2006.

<sup>111</sup> See Kathryn L. Boyd, 'Collective Rights Adjudication in U.S. Courts: Enforcing Human Rights at the Corporate Level' (1999) *Brigham Young University Law Review* 1139, 1174.

<sup>112</sup> *Ibid.*

<sup>113</sup> See Geer above n 51, 349-350.

<sup>114</sup> See Susan Scafidi, 'Intellectual Property and Cultural Products' (2001) 81 *Boston University Law Review* 793, 810-811

conventional property ownership.<sup>115</sup> In essence, the structure of indigenous cultural and resource rights is proprietary in nature even though this would not affect the customary uses and exchanges obtainable with the respective communities. This presupposes that the enforcement of these rights would accommodate all the rights and privileges that inhere in conventional private property ownership, but in this instance exercised collectively.

The genre of indigenous collective rights being advocated here is not entirely new, especially within some domestic jurisdictions. Several countries, especially in South America, have these rights enshrined in their constitutions and other local laws. For instance, article 64 (1) of the *Constitution of Paraguay* 1992 provides in part, that 'indigenous peoples have the right to the communal property of their land, in extension and in sufficient quality for the conservation and development of their particular forms of living.'<sup>116</sup> Furthermore, the combined effect of articles 63, 286, 329 and 330 the *Constitution of Colombia* 1991 is that 'indigenous rights to lands and territories are collectively held, inalienable and not subject to seizure.'<sup>117</sup> In a related respect, article 65 of the *Constitution of Guatemala* 1985 guarantees special protection for indigenous peoples' rights to their communal lands and other 'forms of communal tenancy or collective agrarian ownership, as well as the family patrimony and popular living...'<sup>118</sup> There is also an analogous provision in section 5 of the Philippines' *Indigenous Peoples Rights Act* 1997.<sup>119</sup>

From the above discussions, it becomes clear that the major problem has not been so much about getting some countries to make provisions of this nature. The problem is that the terms and nature of these provisions vary from one

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<sup>115</sup> Ibid.

<sup>116</sup> The *Constitution of Paraguay* 1992 was adopted by the National Constituent Assembly 20 June 1992. For the text of the Constitution, see

<<http://www.oefre.unibe.ch/law/icl/pa00000.html>> at 20 May 2006.

<sup>117</sup> See <<http://www.sdn.org.gy/apa/topic4.htm>> at May 20 2006.

<sup>118</sup> Ibid.

<sup>119</sup> See the *Indigenous Peoples' Rights Act* 1997, Republic Act No. 8371. For the text of the Act, see <<http://www.grain.org/brl/?docid=801&lawid=1508>> at 20 May 2006.

country to another, and several countries do not have such provisions at all. In some cases, consistent interpretation of these provisions within a country varies overtime. For instance, the Canadian Supreme Court's interpretation of section 35(1) and (3) of the *Constitution Act of Canada 1982*, which guarantees 'existing aboriginal and treaty rights of the aboriginal peoples,' including their existing and future land claims,<sup>120</sup> lacks consistency.

Examples of this inconsistency are seen in cases like *Guerin v. R.*,<sup>121</sup> *R v. Sparrow*<sup>122</sup> and *R v. Van der Peet*,<sup>123</sup> where the Court adopted both restrictive and liberal approaches in interpreting the same provision of the Canadian Constitution. Such approaches have sometimes left indigenous peoples and scholars confused as to the real import of these guaranteed rights.<sup>124</sup> For instance, the Court's decision in *Guerin v. R* and *R v. Sparrow*, seem liberal enough to affirm the fiduciary relationship existing between indigenous communities and the Crown, and tie such relationship to the provisions of section 35 of the *Canadian Constitution 1982*.<sup>125</sup> However, in *Van der Peet* and other cases,<sup>126</sup> existing indigenous rights were identified in a way that suggests that government regulations may limit such rights.<sup>127</sup>

It is doubtful whether the Canadian Supreme Court, or any other court, would have adopted such conflicting approaches in interpreting rights conferred under an international instrument. This is because decisions from other jurisdictions act as a yardstick to measure how courts in any country

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<sup>120</sup> For the texts of the *Canada Constitution Acts 1867 and 1982*, see <http://lois.justice.gc.ca/en/const/index.html> at 20 May 2006.

<sup>121</sup> (1984) 13 DLR (4th) 321.

<sup>122</sup> (1990) 70 DLR (4th) 385.

<sup>123</sup> (1996) 2 SCR 507. All of the above cases are discussed in Leonard I. Rotman, 'Creating a Still-Life Out of Dynamic Objects: Rights Reductionism at the Supreme Court of Canada' (1997) 36 *Alberta Law Review* 1. See also Thomas Isaac, 'The Challenge of the Individual and Collective Rights of Aboriginal People' (2002) 21 *Windsor Yearbook of Access to Justice* 431.

<sup>124</sup> See generally, Leonard I. Rotman, 'Defining the Parameters: Aboriginal Rights, Treaty Rights, and the Sparrow Justificatory Test' (1997) 36 *Alberta Law Review* 149.

<sup>125</sup> See Rotman above n 123, 1-2.

<sup>126</sup> Other cases that took this approach include *R v. Gladstone* (1996) 2 SCR 723, and *R v. Pamajewon* (1996) 2 SCR 821, among others.

<sup>127</sup> See Rotman above n 123, 1-2.

have interpreted a particular provision from an international instruments(s). In this way, any disparity in interpreting a particular treaty provision in a particular country would suggest a misapplication of the treaty provision. In contrast, domestic provisions on a particular issue, even if similar in essence, are not guaranteed to deliver consistent interpretations, as there is no yardstick to measure their consistency.

As noted above, the aim of this work is to suggest the formulation of an international framework, a treaty, for indigenous resource rights. The role of the proposed treaty is to provide the general *sui generis* framework on which local communities would rely to protect their knowledge systems and resources. This will ensure uniform protection devoid of any issues unrelated to cultural and resource interests of indigenous and local communities. If states implement the treaty provisions domestically, while giving prominence to indigenous customs, the cultural and resource rights to be enjoyed would be synchronized globally. The situation would also be the same in terms of enforcing such rights, even if with acceptable local variations.

## 7.8. Enforcing Indigenous Cultural and Resource Rights

The process of enforcing indigenous cultural and resource rights appears not to be an easy one. In the main, the main difficulty in enforcing such rights relates to the nature of international law and the manner of 'enforcing' international obligations.<sup>128</sup> In summary, according to Shaw:

international law...is primarily formulated by international agreements, which create rules binding upon the signatories, and customary rules, which are basically state practices recognized by the community at large as laying down patterns of conduct that have to be complied with.<sup>129</sup>

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<sup>128</sup> See Malcolm N. Shaw, *International Law* (5<sup>th</sup> ed. 2003) 6.

<sup>129</sup> Ibid 6.

The agreements and 'practices' that are required to formulate the rules of international law are those that involve states *inter se*.<sup>130</sup> This brings up the issue of the subjects and objects of international law. While states are regarded as the primary subjects of international law, that is, entities that are 'capable of possessing international rights and duties and having the capacity to maintain these rights by bringing international claims';<sup>131</sup> other entities and international organizations have, to varying degrees, been classified as having rights in international law as subjects.<sup>132</sup> However, the primacy of states in the international arena is exemplified by the doctrine of state sovereignty.<sup>133</sup> This gives states authority over their respective territories and their appurtenances as part of the physical and social manifestations of their international legal status.<sup>134</sup>

In contrast to the clear and concise views regarding the status of states in international law, the status of individuals in this respect is far from clear.<sup>135</sup> According to Cassese, 'individuals have gradually come to be regarded as holders of international material interests but also as capable of infringing fundamental values of the world community.'<sup>136</sup> This implies that individuals have, in recent times, been granted rights and assumed obligations at the prompting of states within the international community.<sup>137</sup> However, even with this emerging position of individuals in international law, scholars agree that it amounts to an overstatement to classify individuals as proper subjects of international law without more. According to Brownlie, to classify individuals as such 'is unhelpful' because it 'may seem to imply the existence of capacities which do not exist,' and will confuse the distinction between

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<sup>130</sup> See Ian Brownlie, *Principles of International Law* (6<sup>th</sup> ed) 57.

<sup>131</sup> Ibid citing *Reparation for Injuries Case*, ICJ Reports (1949) 179.

<sup>132</sup> Ibid 58-65.

<sup>133</sup> Ibid 105.

<sup>134</sup> Ibid.

<sup>135</sup> Ibid 65.

<sup>136</sup> See Anthony Cassese, *International Law* (2<sup>nd</sup> ed. 2005) 144.

<sup>137</sup> Ibid. Cassese informs that the treaty that established the Central American Court of Justice (1908-1918) granted rights individuals, states and domestic institutions to appear before the court.



individuals and other subject of international law.<sup>138</sup> In sum, Cassese submits that the position of individuals in international is a unique one: while individuals have obligations in relation to all the members of the international community, they do not possess rights that relate to the international community as a whole.<sup>139</sup> It could be concluded that individuals have arrays of rights and obligations that amount to limited international legal capacity,<sup>140</sup> and still require states to enforce their international claims.<sup>141</sup>

In many ways the above discussions apply, *mutatis mutandis*, to the position of indigenous peoples in international law. In essence, the struggle by indigenous and local communities to be accorded the status of 'subjects' as against 'objects' of international law has been long-drawn and continuing.<sup>142</sup> This implies that states are still expected to espouse indigenous interests internationally. This notwithstanding, currently there is a consensus that indigenous peoples have collective rights to their natural resources, cultural integrity, and environmental security.<sup>143</sup> The crux of the matter here is, however, the manner of enforcement of these rights by the communities themselves.

The most fundamental objective of the rights proposed in this chapter is that their recognition would confer 'legal personality' on all indigenous peoples and local communities in their own rights as distinct groups in relation to their cultural practices and resource use. To date, for obvious reasons, this is one issue that has not been addressed by any international treaty on indigenous rights. According to Anaya, this is because the doctrine of state sovereignty 'impedes the capacity of international law to regulate matters

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<sup>138</sup> This other group includes some international organizations, liberation movements, quasi-states, among others. See Brownlie above n 130, 63-65.

<sup>139</sup> See Cassese above n 136 150.

<sup>140</sup> Ibid.

<sup>141</sup> Ibid 149.

<sup>142</sup> See Russell L. Barsh, 'Indigenous Peoples in the 1990's: From Object to Subject of International Law? (1994) 7 *Harvard Human Rights Journal* 33, 35.

<sup>143</sup> Ibid 43-44.

within the spheres of authority asserted by states recognized by the international community.<sup>144</sup> Leaving aside the 'state sovereignty obstacle,' it is submitted that with the guarantee of legal personality, indigenous communities would be able to assert and enforce the relevant rights collectively and not through proxy. A few examples will suffice.

In the *Bulun Bulun* decision discussed in chapter six of this work, even though the proprietary interest in the subject matter in question vested in the local community, they could not enforce their rights in their own name. This is because their claims to communal ownership were not recognized under Australian laws. In *Ominayak v. Canada*,<sup>145</sup> even though Ominayak brought a complaint to the U.N. Human Rights Committee as a personal complaint, the Committee appreciated the fact that it was a communal issue and granted communal reliefs. The case was decided as a violation of the complainant's human rights under article 27 of the ICCPR, instead of being treated as the community's collective complaint. To a large extent, avoiding these types of situations, especially with respect to the cultural and resource rights of local communities, is one of the final objectives of this work.

In enforcing indigenous cultural and resource rights, the first positive point is that, unlike some other aspects of indigenous knowledge systems, cultural practices and resources are not clouded with the search for owners or individual title holders. It has been argued by the WIPO that there is 'anonymity of origin' of indigenous cultural expressions,<sup>146</sup> because cultural practices and their embodiments are always in permanent process of 'production' through inter-generational innovations by community members.<sup>147</sup> Considering that most cultural practices are collectively

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<sup>144</sup> See James S. Anaya, 'The Capacity of International Law to Advance Ethnic or Nationality Rights Claims' (1990) 75 *Iowa Law Review* 837, 843.

<sup>145</sup> See *Ominayak v. Canada* above n 68.

<sup>146</sup> See WIPO *Intellectual Property Handbook: Policy, Law and Use*, 58 at <<http://www.wipo.int/about-ip/en/iprm/index.htm>> at 20 May 2006.

<sup>147</sup> *Ibid.*

developed, it means that the incentives for their being privately owned and exploited do not usually engender their development.<sup>148</sup> This is largely the same with indigenous resources, save where the communities concerned decide to confer private rights. This implies that indigenous cultural and resources rights would necessarily be enforced as collective rights. But how would this be done?

### 7.8.1. *Sui Generis* Mechanism for Enforcement

As noted above, the proposed treaty will provide the basis for *sui generis* enforcement of indigenous cultural and resource rights. In the present context, among other things, *sui generis* implies the 'conferring of specialized rights' on indigenous peoples and local communities based upon the incidence of their history and culture.<sup>149</sup> This approach brings to the fore 'the distinctiveness of indigenous claims in traditional law, which tends to be limited in its ability to place indigenous claims' into clear categories.<sup>150</sup>

The actual domestic implementation of the proposed treaty rights would be in the form of contractual agreements between the relevant indigenous and local communities and person(s) interested in accessing their knowledge systems or resources. This task is made easier by the existence of entrenched processes for regulating customary activities within local communities.<sup>151</sup> Such processes are usually in diverse forms, ranging from unwritten customary rules, norms, and practices to more formalized ones. These customary norms and rules will play central roles in the present regime. In the present context, their forms are not so much important as the fact that such mechanisms have

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<sup>148</sup> See Scafidi above n 114, 810-811.

<sup>149</sup> See Erik B. Bluemel, 'Separating Instrumental From Intrinsic Rights: Toward an Understanding of Indigenous Participation in International Rule-Making' (2005/2006) 30 *American Indian Law Review* 55, 71.

<sup>150</sup> Ibid.

<sup>151</sup> Kent McNeil, 'Aboriginal Rights in Canada: From Title to Land to Territorial Sovereignty' (1998) 5 *Tulsa Journal of Comparative and International Law* 253, 289.

efficiently served local communities in attributing entitlements and duties for centuries.

Having said the above, it is to note that protection under indigenous customary laws has certain inherent limitations due to the territorial nature of application of such laws. According to Kuruk, customary law protection relies on norms and sanctions that are only appreciated by the members of the local community in question.<sup>152</sup> In this respect, non-community members and members residing outside the community do not have much incentives to obey such laws.<sup>153</sup> Furthermore, there is the issue that as the world globalizes, several customary norms are losing their potency and the nature of indigenous collective property ownership is being watered down.<sup>154</sup> There is also the difficulty of enforcing such customary laws outside the territories of the communities where such laws are practised.<sup>155</sup> Do these concerns derogate from the utility of customary laws to local communities? Not in the least. It is trite that most domestic laws are difficult to implement outside their local jurisdictions and such difficulties do not undermine their domestic utility.

It is in line with the above concerns that the choice of contractual agreements for the proposed purpose is germane. It appreciates the fact that, even though cultural homogeneity exists, there are also some internal variations in customary norms and practices among indigenous communities. These variations would be taken care of by applying *sui generis* principles in negotiating any contracts. For example, a bioprospecting contract could stipulate, *ab initio*, that any dispute(s) would be adjudicated within the relevant communities and primary consideration given to their customary laws. This is largely because, in some cases, issues addressed in such contracts

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<sup>152</sup> See Paul Kuruk, 'Protecting Folklore Under Modern Intellectual Property Regimes: A Re-Appraisal of the Tension Between Individual and Communal Rights in Africa and the United States' (1999) 48 *American University Law Review* 769, 781-783.

<sup>153</sup> *Ibid.*

<sup>154</sup> *Ibid* 786-787.

<sup>155</sup> *Ibid.*

can only make meaning when approached from customary perspective.<sup>156</sup> A major advantage of the contract model in enforcing these rights is that specific areas of cultural practices or resources that are considered sacred or sensitive to local communities, and therefore inalienable, would be expressly stipulated and excluded as desired. For example, in the case of *Foster v. Mountford*<sup>157</sup> where a researcher published sacred information without the community's authorization, such a situation would have been avoided if there was a formal contract between the parties expressly prohibiting the publication of such information in Australia and elsewhere, and penalty for breach stipulated.

Another possibility is that where local communities permit, states could, through their respective agencies, be parties to such contracts as 'guarantors' for the local communities for purposes of enforcing such contracts in cases of breach. This is especially so when the contracts are to be enforced outside the local communities, as there is no denying the fact that these communities and the contract model have their own limitations.<sup>158</sup> For instance, when the contracts are to be enforced outside the states' boundaries, local communities would be helpless to push and enforce their rights in such situations. This is a drawback.<sup>159</sup> It could, however, be possible for local communities to instruct and empower the states to assume their rights in such respects and press claims on their behalf. This situation notwithstanding, states do not assume any rights, obligations or liabilities in their own rights in such contracts. The advantage of this model is that local communities would be exercising their rights based on recognized international norms, as against the present situation of having a multiplicity of domestic laws and regulations that differ

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<sup>156</sup> See William Jonas, 'The Recognition of Aboriginal Customary Law' (Paper Presented at the Human Rights and Equal Opportunity Commission/International Lawyers Association Seminar on Customary Aboriginal Law, Sydney 20 November 2003, in Megan Davis and Hannah McGlade, 'International Human Rights Law and the Recognition of Aboriginal Law' (Background Paper No. 10, Law Reform Commission of Western Australia, (March 2005). 9.

<sup>157</sup> (1976) 29 FLR 233.

<sup>158</sup> See generally Tom Greaves, 'IPR, A Current Survey' in Tom Greaves (ed), *Intellectual Property Rights for Indigenous Peoples: A Sourcebook* (1994) 9-10.

<sup>159</sup> Ibid. See in the same volume, Sandra Lee Pinel and Michael J. Evans, 'Tribal Sovereignty and the Control of Knowledge' at 43, 50-53.

in spirit and content from one state to another. In short, the proposed treaty regime and the contract model offer limitless possibilities and variations in enforcing indigenous resources rights. Although the contract model has its own limitations,<sup>160</sup> it appears, in practical terms, the most effective and flexible mechanism for the present, and the one that relies the least on states for its formulation and execution.

Having said all of the above, three key questions remain to be answered in the context of the model proposed above.

a. How does the proposed treaty differ from existing treaties on indigenous rights?

Even though the proposed treaty cannot be said the 'magic bullet' for protecting indigenous rights and resources, it is intended to be more specific in its subject matter and deals solely with indigenous cultural and resource rights, and gives prominent roles to customary laws and practices. For instance, the treaty does not deal with the issue of indigenous self-determination. The treaty recognizes indigenous communities as legal entities in their own rights, which status could be devolved by the communities on an individual or sub-groups to exercise private resource rights. Even though the conferment of this legal status on indigenous communities is a deviation from the mainstream Western practices, indigenous collectivity is also a particular attribute, and therefore requires special different mechanisms.

b. What is the difference between the contract model suggested here and the Access and Benefit-Sharing systems under the CBD and ITPGR?

Under the proposed treaty, contracts are to be negotiated between local communities and person(s) interested in any aspect(s) of their knowledge systems or resources. Therefore, unlike under the CBD and like instruments where states play dominant roles and local communities hardly participate in

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<sup>160</sup> The Contract Model is discussed in section 6.4.9 of chapter six.

determining access, under the proposed treaty, local communities are to oversee the alienation of their knowledge systems and resource interests.<sup>161</sup> Additionally, the CBD and other instruments emphasize 'access and benefit-sharing', while virtually neglecting indigenous resources that should not be 'accessed or shared'. On the contrary, however, the proposed treaty and the contract model are primarily intended to safeguard indigenous resources for the subsistence and perpetuation of local communities, while permitting access to these resources.

c. How are indigenous resources to be determined for purposes of the proposed treaty?

It is fairly difficult to precisely define 'indigenous resources' in terms that would be all-encompassing and globally acceptable. Therefore, it appears that a descriptive approach would be more suitable in this regard.

The U.N. recognizes that membership of indigenous communities is by self-definition, that is, it is for individuals to decide that they are indigenous, and then to live with their communities on their lands.<sup>162</sup> As a resource, land plays an important role in indigenous life and subsistence and could be said to be the basis of indigenous survival. Taking this into consideration, this work adopts the view that, while knowledge inheres in the peoples themselves, all physical resources including all plant and animal genetic resources, watercourses, and the general ecosystems that are found on indigenous ancestral lands should constitute their resources for the purposes of this work, and the proposed treaty. The choice of indigenous ancestral lands presupposes that there are no rival proprietary claims on such lands that

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<sup>161</sup> This is akin to some of the provisions in the *African Model Law 2000* and the Philippines' *Indigenous Peoples Rights Act 1997 (IPRA)*. However, while the African Model Law is a regional initiative, the other is domestic. See the discussions in chapter four for some of the highlights of these laws. For the text of the IPRA, see

<<http://www.grain.org/brl/?docid=801&lawid=1508>> at 9 February 2007.

<sup>162</sup> Article 8 of the U.N. *Declaration on the Rights of Indigenous Peoples 1994*, states that indigenous peoples have the rights to identify themselves as indigenous and be recognized as such.

could trump the rights of the local communities over such resources, which are required for their subsistence and survival.<sup>163</sup> The intangible resources of local communities will be considered part of their collective knowledge systems. In this way, the proposed treaty will not itemize subject matters that qualify as 'indigenous resources' due to the difficulties involved in such an exercise. This appears to be the best approach, since the option of gathering these resources in databases, imports all the problems discussed in that respect in the last chapter.<sup>164</sup>

Finally, even though a lot has been said about the collective rights of indigenous communities in this work, it must be acknowledged that the proposal for indigenous collective rights is not without dissenting voices. There are scholarly views that group or collective rights are not necessary for any right(s) to be effectively enforced.

## 7.9. Arguments Against Group Rights

The proposal for the recognition of indigenous resource rights is meant to guarantee a more effective enforcement of such rights devoid of the political undertones inherent in treating such right as minority rights. This notwithstanding, there are some apprehensions about the recognition of such collective rights. For instance, Makinson raises the concern that if the right to cultural identity is meant to allow the communities concerned to express and nurture such cultures, then what happens when aspects of such cultures conflict with some widely recognized human rights?<sup>165</sup> Similar concerns, it

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<sup>163</sup> Section 3(b) of the *Indigenous Peoples Rights Act 1997* describes indigenous ancestral lands to mean those lands that have been held by local communities either in group or individual ownership since time immemorial through their predecessors, except when there are government or other third party interests or displacement by natural disasters or other factors.

<sup>164</sup> These issues were discussed in section 6.4.7 of chapter six.

<sup>165</sup> See David Makinson, 'Rights of Peoples: Point of View of a Logician' in Crawford above n 88, 89.



appears, have led to a situation where issues relating to cultural rights have been considered too complex and thereby left largely undeveloped.<sup>166</sup>

In another respect, Professor Scafidi submits that the inter-generational nature of the evolution of cultural products into a form of 'property' discourages a common understanding of their ownership.<sup>167</sup> This being the case, she argues that the issue of ownership and the more complicated issue of community membership, which complicates private consensus, must be resolved before any legal protection could be considered for cultural subject matters.<sup>168</sup>

Finally, Buchanan opines that states' recognition of individual rights serves more effectively in protecting a community's interests than collective rights.<sup>169</sup> This is based on the perception that enforcing group rights would involve collective decision-making process of some kind, which increases the costs of such processes.<sup>170</sup> He also argues that group rights are likely to encourage paternalism and would often involve a form of hierarchical decision-making procedure that is prone to abuse by community leaders.<sup>171</sup>

In addressing these concerns, the first observation is that the potential for any conflict between guaranteed group rights and other entrenched human rights should not deter the affirmation of such group rights. It is taken as given that the exercise of indigenous collective rights should be within the confines of states' laws. For instance, a customary practice that constitutes a crime within a state would hardly be feasible as a cultural right in the present context. This is because such rights are meant to engender community cohesion and not to constitute challenges to established legal norms with states.

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<sup>166</sup> See Prott above n 106, 98.

<sup>167</sup> See Scafidi above n 114, 811.

<sup>168</sup> Ibid.

<sup>169</sup> See Alan Buchanan, 'Assessing the Communitarian Critique of Liberalism' (1989) 99 *Ethics* 852, 856-857, in Michael McDonald, 'Should Communities Have Rights': Reflections of Liberal Individualism' (1991) 4 *Canadian Journal of Law and Jurisprudence* 217, 231.

<sup>170</sup> Ibid.

<sup>171</sup> Ibid 23fn.

On the issue of the difficulty in establishing ownership over local communities' cultural products, it is trite that the customary laws, traditions and internal dynamics of the concerned local communities, determine traditional rights over such products. The notion of indigenous ownership, where the term is used, is primarily communal and does not involve the intricate task of assigning private rights to every individual member of the community. Even if this were otherwise, local communities have assigned rights and attributed benefits over their resources for centuries, and have established and adapted entrenched customary norms for such purposes. In such instances, therefore, their cultural and resource rights are the ones that are to be protected by legal instruments, while the communities' internal mechanisms would deal with members' entitlements. This also applies to the issue of a community's membership, because when a state interferes and legislates on such membership issues, the complication that arose in *Lovelace v. Canada*<sup>172</sup> is usually one of the outcomes.

McDonald has addressed the criticism about the hierarchical and paternalistic nature of group rights, and submits that, essentially, groups can be non-hierarchical and non-paternalistic.<sup>173</sup> However, even if such hierarchy and paternalism exist within indigenous groups, it has been submitted that these groups still possess decision-making procedures that are more participatory and inclusive than most non-indigenous societies.<sup>174</sup> It needs to be added that the communal nature of indigenous communities coupled with the close relationships based on kinship factors necessarily implicate some elements of hierarchy exemplified by the elders' councils. It is therefore imperative that

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<sup>172</sup> See *Lovelace v. Canada* above n 69. In the case, Canada's Indian Act had stipulated that in some instances if an Aboriginal woman marries a non-Aborigine, she loses her status. This did not apply to male members. This issue should not have been the concern of the state in the first place. Ms Lovelace married a non-Aboriginal and lost her status and then divorced. She petitioned the U.N. Human Rights Committee under article 27 of the ICCPR. It was held that she was discriminated against and her status was restored.

<sup>173</sup> See McDonald above n 168, 231fn.

<sup>174</sup> *Ibid.*

where such distinctiveness exists, it should be considered as such and not juxtaposed with the social structure of non-indigenous societies.

## 7.10. Conclusion

The idea of indigenous group rights in particular, and group rights generally is bound to raise objections, and properly so. According to Professor Wiessner, the main reason for this is that, in general, group rights go against the mainstream Western thought that is based on the paradigm of setting the individual against the state on the basis of the social contract theory.<sup>175</sup> It is submitted that this seeming 'conflict' should not truncate the recognition and exercise of collective cultural and resource rights by indigenous and local communities. It should be appreciated that these communities are structurally different in their internal dynamics in comparison with other non-indigenous societies. In their everyday relationships, members of indigenous communities are bound to one another in a network of horizontal filial relationships.<sup>176</sup> Even though these relationships define the very essence of indigenous life, they might appear less significant to non-indigenous audiences.<sup>177</sup> Furthermore, through these relationships, traditional structures for the exercise of authority are also established to protect and enhance members' collective socio-cultural and resource interests.<sup>178</sup>

It is also notable that the rights proposed in this chapter are not equivalent to exercise in affirmative actions, which involve 'measures of positive

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<sup>175</sup> See Siegfried Wiessner, 'Rights and Status of Indigenous Peoples: A Global Comparative and International Legal Analysis' (1999) *Harvard Human Rights Journal* 57, 120.

<sup>176</sup> Ibid 121.

<sup>177</sup> Ibid.

<sup>178</sup> Ibid.

discrimination provided to overcome past injustices or systematic disadvantages that a particular group has been exposed to'.<sup>179</sup> These are usually temporary measures that cease once the perceived injustice has been rectified.<sup>180</sup> On the contrary, the rights proposed in this work are meant to enable indigenous and local communities to maintain a lasting manifestation of their distinct cultural identity and preserve their knowledge systems and resources.<sup>181</sup> This would also ensure their control over an internationally recognized process for the exploitation and dissemination of their cultural resources.

From all of the above, it is hoped that the proposal put forward in this work would be acceptable to states and local communities. This is because it has sought to meet the both parties at the middle road on the issues discussed: while the present proposal has left out the contentious issue of indigenous political self-determination, from which states take flight, it has conferred resource rights and legal personality on indigenous communities. This issue is invaluable to local communities, and would be a bold start if such rights were secured. While it is not possible to address all conceivable objections to the issues raised in this chapter, efforts have been made to suggest a workable regime.

It is submitted that indigenous culture is naturally a group phenomenon.<sup>182</sup> In consequence, prescriptions that are meant to effectively protect and preserve such group phenomenon or aspects thereof, must, of necessity, assume collective character.<sup>183</sup> Any attempt to individualize them would ultimately frustrate the purposes they are meant to serve.<sup>184</sup> Added to this is the

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<sup>179</sup> See Miodrag A. Jovanović, 'Recognizing Minorities Identities Through Collective Rights' (2005) 27 *Human Rights Quarterly* 625, 637-638.

<sup>180</sup> Ibid. Citing Donald Horowitz, *Ethnic Groups in Conflict* (1985) 657.

<sup>181</sup> See Asbjørn Eide, 'Minority Protection and World Order: Toward a Framework for Law and Policy' in Alan Phillips and Allan Rosas (eds), *Universal Minority Rights* (1995) 87, 101.

<sup>182</sup> See Wiessner above n 174, 121.

<sup>183</sup> Ibid.

<sup>184</sup> Ibid.

recognition that collective rights would legitimize indigenous claims and avoid these claims being questioned by non-indigenous groups, who are unable to distinguish the distinctiveness of indigenous claims from theirs.<sup>185</sup> The exercise of indigenous group rights would therefore help to clarify their distinctive character from any other group claims. In the final analysis, in the main, the proposals in this work are meant to achieve the following specific five major objectives:

- i. To help construct and affirm distinct rights for indigenous peoples and local communities for their knowledge and resource protection that go beyond conventional human rights enforcement.<sup>186</sup> Due to the fact that universal human rights are usually person-centric and mainly directed at protecting individuals, distinct group-based rights are better suited to protect indigenous collectivity.
- ii. To articulate the above rights in a manner that distinguishes them from the mainstream rights claims of diverse minority groups.<sup>187</sup>
- iii. To articulate *sui generis* mechanisms for the enforcement of indigenous cultural and resource rights. These mechanisms are those that will take into consideration the diversity across indigenous and local communities, while still protecting the collectivity and holism of indigenous life and resource holdings.
- iv. To attempt to create a regime that will distinguish between indigenous resource rights and indigenous rights to self-determination as distinct, but equally important, aspects of indigenous existential necessity. This is to avoid the political obfuscation that characterizes the struggle for indigenous self-

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<sup>185</sup> See Bluemel above n 149, 95.

<sup>186</sup> See Kingsbury above n 63, 237-240.

<sup>187</sup> Ibid.

determination from also impeding the realization of their cultural and resource rights.

- v. Finally, the present proposal attempts to clothe indigenous groups with legal personality to be able to enter into access agreements, bioprospecting, and other related contracts and enforce them in their own rights.<sup>188</sup> In this way, indigenous and local communities are able to exercise their collective rights as an entity, as against doing same on individual basis or in representative capacity.

It is submitted that if these objectives are achieved, they will contribute significantly to the aspirations of indigenous and local communities to effectively manage and protect their diverse knowledge systems and resources.

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<sup>188</sup> The limitations facing indigenous and local communities in this regard with respect to international enforcement were discussed earlier in this chapter.

## **Chapter Eight**

### **Conclusions**

## Chapter Eight

### 8: Conclusions

This work has examined the possibility for the protection of indigenous knowledge systems and resources based on the recognition of the group rights of local communities.<sup>1</sup> The major premise for the discussions is that the holistic nature of indigenous knowledge systems, coupled with the preponderance of their collective exploitation by local communities, has made imperative their protection as group phenomena.<sup>2</sup> It is important to note that local communities do not consider their knowledge systems in abstraction, but as part of sophisticated organic systems and practices relating to the ecosystems, of which they are a part.<sup>3</sup> Therefore, for any mechanism(s) to effectively protect indigenous knowledge systems, it must cater for the socio-cultural, ecological, subsistence, and spiritual aspects of indigenous life.<sup>4</sup>

The discussions in this work reveal the intricate relationships among the component parts of indigenous knowledge systems. Added to this is the conceptual divergence between indigenous and non-indigenous worldviews on issues such as 'property' and 'ecosystems,' including their ownerships, alienation, and uses.<sup>5</sup> Principally, indigenous communities do not consider their resources as 'property' in the conventional understanding of the term, but have essentially conceptualized their concepts of 'property' and 'resources' in relation to their lands and general ecosystems. Indigenous

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<sup>1</sup> On this issue, see generally Robert Williams Jr., 'Encounters on the Frontiers of International Human Rights: Re-defining the Terms of Indigenous Peoples' Survival in the World' (1990) *Duke Law Journal* 660; Philip Lynch, 'Keeping Them Home: The Best Interests of Indigenous Children and Communities in Canada and Australia' (2001) 23 *Sydney Law Review* 501.

<sup>2</sup> See the discussions in chapter seven of this work.

<sup>3</sup> See Lee P. Breckenridge, 'Protection of Biological and Cultural Diversity: Emerging Recognition of Local Community Right in International Law' (1992) 59 *Tennessee Law Review* 735, 746-747.

<sup>4</sup> *Ibid.*

<sup>5</sup> Refer to the discussions in chapters one and two of this work.



concept of land is, therefore, all-encompassing and distinct, and constitutes the bedrock of community subsistence, adhering to the spirit of collectivism and downplaying the idea of individual property.<sup>6</sup>

In the present context, the major implication of this indigenous collectivism is that the structuring of any resource use or access patterns, or other forms of property entitlements, must be based on norms and concepts that are recognized and functional within and among local communities.<sup>7</sup> This implies that attempt to formulate rule(s) of entitlements for local communities must be done with the understanding that these communities have, for centuries, had their own existing customary laws, norms, and rules of assigning such entitlements. In this way, it becomes easier to deal with important, but complex, issues, such as negotiating access to biodiversity resources and structuring benefit-sharing arrangements.

This work found that in recent decades, the issue of access to indigenous biodiversity resources and related knowledge has assumed central significance within the international arena.<sup>8</sup> This has especially been the case as a result of the proven utility of indigenous medicinal knowledge and practices in assisting pharmaceutical and medicinal research projects.<sup>9</sup> However, this development seems to have created two major problems for local communities: the first is that the sustainability of indigenous ecosystem resources, especially plant-based resources, has come under increased

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<sup>6</sup> See Jose M. Molintas, 'The Philippine Indigenous Peoples' Struggle for Land and Life: Changing Legal Texts' (2004) 21 *Arizona Journal of International and Comparative Law* 269, 275; see also, Siegfried Wiessner, 'Rights and Status of Indigenous Peoples: A Global Comparative and International Legal Analysis' (1999) 12 *Harvard Human Rights Journal* 57, 120-121.

<sup>7</sup> See James Anaya and Robert A. Williams Jr., 'The Protection of Indigenous Peoples' Rights over Lands and Resources under the Inter-American Human Rights System' (2001) 14 *Harvard Human Rights Journal* 33, 43.

<sup>8</sup> See Fikret Berkes, Johan Colding and Carl Folke, 'Rediscovery of Traditional Ecological Knowledge as Adaptive Management' (2000) 10 *Ecological Applications* 1251,

<sup>9</sup> Ibid.

pressure from entities outside local communities.<sup>10</sup> The increase in demand for these indigenous resources has raised concerns for their future availability for sustaining local communities, since resource replenishments have not matched the pace of exploitation.<sup>11</sup> The second problem, flowing from the first, is the increase in allegations of biopiracy, which relates to access activities involving indigenous biodiversity resources and related knowledge without the requisite consent or compensation.<sup>12</sup> These problems necessitate the need for effective protection of the resource rights and interests of local communities, in order to guarantee their resource bases and means of subsistence.

It is noteworthy, however, that protecting indigenous knowledge systems requires special attention. This is based on the fact that local communities live inter-dependently with all forms of life, and there is an existential bond linking the spiritual, physical, social, and mental aspects of indigenous life with their natural world.<sup>13</sup> This implies that an effective protective mechanism would be one that protects both the resource rights of local communities and the members themselves. Since local communities affirm that they belong to, and form part of their ecosystems, this work found that it is difficult, if not impossible, to segregate the peoples, their resources, and knowledge systems for purposes of protection. In this respect, it is submitted that, the adoption, at the international level, of indigenous cultural and resources rights as umbrella mechanism would be adequate protection.

Notwithstanding the fact that there are domestic initiatives that seek to protect diverse rights and interests of local communities, it is submitted, that for uniformity of criteria and guidelines, the initiative for protecting

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<sup>10</sup> See Darrell Posey, 'Intellectual Property Rights and Just Compensation for Indigenous Knowledge' (1990) 6 *Anthropology Today* 13, 14.

<sup>11</sup> See Stephen B. Brush, 'Indigenous Knowledge of Biological Resources and Intellectual Property Rights: The Role of Anthropology' (1993) 95 *American Anthropologist* 653, 660.

<sup>12</sup> Refer to the discussions in chapter five of this work.

<sup>13</sup> See Enrique Salmón, 'Kincentric Ecology: Indigenous Perception of the Human Nature Relationships' (2000) 10 *Ecological Applications* 1327-1331.

indigenous cultural and resource rights must be rooted in international law. According to Professor Anaya, it is crucial that any protection of indigenous knowledge systems and resources must be facilitated in a global context, and within an international legal framework.<sup>14</sup> The reason is that international law enables local communities to act beyond the imbalance that frequently occurs in their relationships with states, especially in negotiating resource agreements, as against being based solely on domestic laws and policies.<sup>15</sup> While some domestic instruments have made far-reaching provisions in addressing indigenous rights and interests, these instruments are mostly 'stand alone' initiatives, and only few are meant to implement specific international agreement(s).

The above comments do not imply that having an international instrument that provides for indigenous interests, without more, would be sufficient in the context of the present discussions. To sufficiently protect the resource interests of local communities, any suggested mechanism(s) must address the major shortcomings in the existing instruments on this subject, as discussed below.

Even though no international instrument is dedicated solely to protecting the cultural and resource rights of local communities, the *Convention on Biological Diversity* 1992 (CBD)<sup>16</sup>, and the *ILO Convention (No. 169) Concerning Indigenous and Tribal Peoples in Independent Countries* 1989 (ILO Convention)<sup>17</sup> have some relevant provisions that could be relied on. From the perspectives of local communities, the ILO Convention seems to be the most proactive existing instruments in protecting their interests. In contrast, for the CBD, apart from

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<sup>14</sup> See James Anaya 'Divergent Discourses about International Law, Indigenous Peoples, and Rights Over Lands and Resources: Toward a Realist Trend' (2005) *Colorado Journal of International Environmental Law and Policy* 237, 246-248.

<sup>15</sup> Ibid.

<sup>16</sup> For the text of the CBD, see <<http://www.biodiv.org/convention/articles.asp>> at 20 August 2006.

<sup>17</sup> For the text of the ILO Convention, see <<http://www.unhchr.ch/html/menu3/b/62.htm>> 20 August 2006.

the provisions recognizing the value of indigenous customary practices that are relevant for biodiversity conservation,<sup>18</sup> the other provisions of the Convention have been criticized as largely inferential.<sup>19</sup> This implies that the provisions do not expressly accord any rights to local communities, although such rights might be inferred from the underlying philosophy of the Convention.<sup>20</sup>

Leaving aside the above comments, the first major pitfall in existing international instruments is that they have made unduly state-centric provisions, where states are at liberty to formulate their local legislation as they wish, and grant local communities the extent of rights that they deem fit. This has meant that the rights enjoyed by these communities vary considerable across states, with attendant disparity in the standard of life within these communities.

The second pitfall, flowing from the first, has been the pervasiveness of states sovereign rights in relating to the exploitation of indigenous resources. For instance, in most states, the governments are usually responsible for the approval of informed consent for access to resources, or they regulate the process and reserve the right to issue access permit, following consultation with or approval by local communities. While intangible aspects indigenous knowledge, being largely within the realm of communal practices, are somewhat less affected in this area, the benefits accruing from the use of such knowledge are also officially regulated. This situation is detrimental to the effective exercise of indigenous holistic approach to ecosystem management,

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<sup>18</sup> This is reflected in the provisions of article 8(j) and 10 (c) of the CBD.

<sup>19</sup> See Howard Mann, 'Intellectual property Rights, Biodiversity and Indigenous Knowledge: A Critical Analysis in the Canadian Context,' Paper prepared for the Canadian working Committee on Article 8(j) of the CBD, November 1997, in Rosemary Coombe, 'Intellectual Property, Human Rights and Sovereignty: New Dilemmas in International Law Posed by the Recognition of Indigenous Knowledge and the Conservation of Biodiversity' (1998) 6 *Indiana Journal of Global Legal Studies* 59, 99-100.

<sup>20</sup> Some of the provisions of the CBD in this category include articles 6 and 19(4).

since governmental regulatory interference tends to disrupt the seamless relationships that exist between local communities and their environment.

To address the above situation, this work proposes that effective protection of indigenous knowledge systems in terms of cultural and resource rights would be adequate. This approach has been adopted, since discussions in this work have established that, as presently formulated, the oft-suggested intellectual property rights (IPRs) mechanisms are inadequate for the purposes.<sup>21</sup> Added to this, local communities have also resisted the application of IPRs to their knowledge systems as an attempt to commoditize all aspects of their knowledge systems, including sacred knowledge and life forms.<sup>22</sup> It has also been alleged the IPR mechanisms, especially patents, help to perpetuate a new form of global biopiracy of indigenous resources, by applying Western standards of innovation to indigenous community economy.<sup>23</sup> This ultimately leads to the erosion of communal subsistence resources within local communities.<sup>24</sup>

The communality of indigenous life is another obstacle that confronts the application of IPRs in the realm of indigenous knowledge systems. In the main, conventional IPR mechanisms do not accommodate collective rights that form the bedrock of indigenous resource holding. In turn, this makes it difficult to guarantee protection of indigenous knowledge without the limitation of tenure, which fact inhibits the incorporation of indigenous perspectives into formal legal systems.<sup>25</sup> This process of incorporation is essential in guaranteeing that local communities continue to exist as groups,

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<sup>21</sup> See the discussions in chapter six of this work.

<sup>22</sup> See, for instance, Darrell Posey and Graham Dutfield, *Beyond Intellectual Property: Toward Traditional Resource Rights for Indigenous Peoples and Local Communities* (1996) at <[http://www.crdi.ca/en/ev-9327-201-1-DO\\_TOPIC.html](http://www.crdi.ca/en/ev-9327-201-1-DO_TOPIC.html)> at 20 August 2006.

<sup>23</sup> See Stephen Gudeman, 'Sketches, Qualms, and other Thoughts on Intellectual Property Rights' in Stephen Brush and Doreen Stabinsky (eds), *Valuing Local Knowledge: Indigenous People and Intellectual Property Rights* (1996) 68-75.

<sup>24</sup> Ibid.

<sup>25</sup> See Sarah Harding, 'Justifying Repatriation of Native American Cultural Property' (1997) 72 *Indiana Law Journal* 723.

and would guarantee their socio-cultural self-definition through their own customary practices.<sup>26</sup>

To deal with the above issues, this work submits that internationally guaranteed cultural and resource rights of local communities will provide them with inalienable rights to their natural resources, which are widely understood to be critical to the physical and cultural survival of these communities.<sup>27</sup> In doing this, local communities will also be guaranteed their continued communal stewardship over their lands, including the spiritual and emotional nexus with their ecosystems.<sup>28</sup> Added to this, the adoption and implementation of indigenous cultural and resource rights will, most importantly, confer on local communities the rights to determine the modes and conditions of access to their knowledge systems and resources. This will do away with states' paternalism that has been the hallmark of most international instruments in this area. This is essential, because, in most states with indigenous populations, the relationships between the states and local communities have been far from cordial.<sup>29</sup> Therefore, it would amount to misjudging local social realities to assume that states will always administer local laws on access to biodiversity resources to safeguard the best interests of local communities.<sup>30</sup>

Flowing from the above, cultural and resource rights mechanisms will confer legal personality status on local communities in their own rights, and enable them to deal directly with external entities on issues relating to access. This will include the issues relating to benefit-sharing, consent, applicable compensation, and determining local accessible resources, among others. This

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<sup>26</sup> Ibid.

<sup>27</sup> See Erik B. Bluemel, 'Substance Without Process: Analyzing TRIPS Participatory Guarantees in Light of Protected Indigenous Rights' (2004) 86 *Journal of the Patent and Trademark Office Society* 671 675.

<sup>28</sup> See Anaya above n 14, 248-250.

<sup>29</sup> See Rosemary Coombe, 'Recognition of Indigenous Peoples' and Community Traditional Knowledge in International Law' (2001) 14 *St. Thomas Law Review* 275, 280.

<sup>30</sup> Ibid.

will reduce, if not eliminate, the diverse reasons that give rise to allegations of biopiracy.

Another advantage of this suggested approach is that it will enable local communities to control, through bioprospecting agreements, the subsequent use of their resources. Chapter six of this work highlighted the uncertainties that confront local communities in relation to the patenting of life forms, especially in the context of the *Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) 1993*<sup>31</sup> (TRIPS). Assuming control of the access process would enable local communities to expressly indicate, where they deem fit, the inapplicability of exclusive IPRs protection to any product(s) made from their natural resources. In this way, the controversy as to whether or not TRIPS facilitate the patenting of life forms will be avoided.

In conclusion, it must be noted that this work has not attempted to address all the issues relating to the protection of the resources and knowledge systems of local communities. A particular area of difficulty that has not been addressed in this work has been the practice by some scholars and indigenous communities to treat the issue of resource control as part of indigenous self-determination.<sup>32</sup> For example, Professor Porter submits that any supervisory state action that interferes with the internal affairs of indigenous and local communities in their lifestyle is a violation of their rights of self-determination.<sup>33</sup> This is a valid submission. However, the fact that the notion of indigenous self-determination encompasses all indigenous demands,

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<sup>31</sup> The *Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)* is Annex 1C to the Marrakesh Agreement Establishing the World Trade Organization (WTO), signed in Marrakesh, Morocco, April 15 1994. For the text of the TRIPS Agreement see <[http://www.wto.org/english/tratop\\_e/trips\\_e/t\\_agm0\\_e.htm](http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm)> at 25 August 2006.

<sup>32</sup> See generally Dean B. Suagee, 'Self-Determination for Indigenous Peoples at the Dawn of the Solar Age' (1992) 25 *University of Michigan Journal of Law Reform* 671; Russell L. Barsh, 'The Challenge of Indigenous Self-Determination' (1993) 26 *University of Michigan Journal of Law Reform* 277; James Anaya, 'International Human Rights and Indigenous Peoples: The Move Toward Multicultural State' (2004) 21 *Arizona Journal of International and Comparative Law* 13.

<sup>33</sup> See Robert B. Porter, 'A Proposal to the Hanodaganyas to Decolonize Federal Indian Control Law' (1998) 31 *University of Michigan Journal of Law Reform* 899, 950-951.

including political, cultural, economic, resource, and related interests, has made it the most contentious issue in indigenous discourse. This work submits that alternative routes to securing these indigenous interests are also feasible.

In consequence of the above, this work has not adopted the common approach of lumping all indigenous interests under the concept of 'self-determination'. This does not imply that the present endeavour undermines the all-embracing pursuit of indigenous self-determination to include resource control and related interests of local communities. The present approach is a phased process, which recommends the pursuit of indigenous resource-control rights and political self-determination through different fora. In the present instance, the aim is to pursue indigenous resource rights through the international recognition of the cultural and resource rights of local communities as enforceable rights. This would be devoid of the political undertones that states' have tied to the notion of 'indigenous self-determination.' The hope is that, in the end, if local communities are able to secure their resource rights first, then, the challenges facing them in pursuing political self-determination will be fewer and more clearly defined.



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## **New Zealand**

*Trade Marks Act 1953*

*Treaty of Waitangi 1840*

*Treaty of Waitangi Act 1975*

## **Nigeria**

*Copyright Act Cap. 68 1990*

## **Pakistan**

*Draft Law on Access and Community Rights 2004*

## **Paraguay**

*Constitution of Paraguay 1992*

## **Philippines**

*Indigenous Peoples Rights Act 1997*

*Constitution of the Philippines 1987*

*Traditional and Alternative Medicine Act 1997*

*Administrative Order No. 96-20 of 1996 (the Order) (Implementing Rules and Regulations on the Prospecting of Biological and Genetic Resources) 1996*

## **Singapore**

*Traditional Chinese Medicine Practitioners Act 2000*

## **South Africa**

*South African Constitution of 1996*

*Biodiversity Act 2004*

*Traditional Health Practitioners Act 2004*

*National Environmental Management Act 1998*

## **United Kingdom**

*Statute of Anne 1710*

*The Statute of Monopolies, 1623*

## **United States**

*American Historic Sites, Buildings and Antiquities Act 1935*

*American National Historic Preservation Act 1966*

*Antiquities Act 1906*

*California Art Preservation Act (CAPA) 1982*

*Constitution of the United States 1787*

*Copyright Act 1976*

*Indian Arts and Crafts Act 1990*

*Indian Craft Act 1990*

*Native American Grave Protection and Repatriation Act 1990*

*New York Artists Authorship Rights Act (NYAARA) 1983*

*Sony Bono Copyright Term Extension Act 1998*

*Uniform Trade Secrets Act 1985*

*Visual Artists Rights Act (VARA) 1990*

## **Vanuatu**

*Constitution of the Republic of Vanuatu 1980*

## **Instruments (Regional and International)**

*African Charter on Human and Peoples' Rights 1981*

*African Model Legislation for the Protection of the Rights of Local Communities, Farmers and Breeders, and for the Regulation of Access to Biological Resources, 2000*

*Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) 1994*

*Akwé: Kon Guidelines 2004*

*Algiers Declaration of the Rights of Peoples 1976*

*American Declaration on the Rights and Duties of Man 1948*

*Andean Community Common Access Regime on Genetic Resources 1996*

*Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of all Types of Forests 1992*

*Banjul Agreement on the Creation of African Intellectual Property Organization 1977*

*Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their Disposal* 1989

*Berne Convention for the Protection of Literary and Artistic Works*, 1886

*Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization* 2002

*Budapest Treaty on the International Recognition of the Deposit of Micro-Organisms for the Purposes of Patent Procedure* 1977

*Cartagena Protocol on Biosafety* 2000

*Charter on the Economic Rights and Duties of States* 1974

*Constitution of the World Health Organization* 1948

*Constitutive Act of the African Union* 2000

*Convention for the Protection of Cultural Property in the Event of Armed Conflict* 1954

*Convention on Biological Diversity (CBD)* 1992

*Convention on the Conservation of European Wildlife and Natural Habitats* 1979

*Convention on the Means of Prohibiting and Preventing Illicit Import, Export and Transfer of Ownership on Cultural Property* 1970

*Convention on the Rights of the Child* 1989

*Convention to Combat Desertification, Particularly in Africa* 1994

*Declaration of Indigenous Peoples of Western Hemisphere on Human Genome Diversity Project* 1995

*Declaration of Principles on Human Rights and the Environment* 1994

*Declaration on Rights of Persons Belonging to National, Ethnic, Religious and Linguistic Minorities* 1992

*Declaration on the Principles of International Cultural Cooperation* 1966

*Draft Declaration of Principles on Human Rights and the Environment* 1994

*Draft Declaration on the Rights of Indigenous Peoples* 1994

*Draft Treaty for the Protection of Expressions of Folklore* 1984

*European Convention on Human Rights and Fundamental Freedoms* 1950

*General Agreement on Tariffs and Trade* 1947 (1993)

*Hague Convention (No. 1V) Respecting the Laws and Customs of War on Land* 1907  
*ILO Convention (169) Concerning Indigenous and Tribal Peoples in Independent Countries*, 1989  
*ILO Indigenous and Tribal Populations Convention* 107 of 1957  
*Indigenous Peoples Earth Charter* 1992 (Kari-Oca Declaration)  
*International Convention for the Protection of New Varieties of Plants* 1961, 1991  
*International Covenant on Civil and Political Rights* 1966  
*International Covenant on Economic and Social Rights* 1966  
*International Treaty on Plant genetic Resources for Food and Agriculture* 2001  
*International Undertaking on Plant Genetic Resources for Food and Agriculture* 1983  
*Lisbon Agreement for the Protections of Appellations of Origin and their Registration* 1958  
  
*Madrid Agreement for the Repression of False and Deceptive Indications of Source* 1891  
  
*Mataatua Declaration on Cultural and Intellectual Property Rights of Indigenous Peoples*, 1993  
  
*Model Ethical Protocol for Collecting DNA Samples* 1997  
*Model Laws on Copyright for Developing Countries*, 1976  
*Paris Convention for the Protection of Industrial Property* 1883  
  
*Principles Relating to Remote Sensing of the Earth from Space* 1987  
*Proposed American Declaration on the Rights of Indigenous Peoples* 1997  
*Rio Declaration on Environment and Development* 1992  
*Rotterdam Convention on Prior Informed Consent* 1998  
  
*Statute of the International Criminal Court* 1998  
*Taipei Declaration on the Rights of Indigenous Peoples* 1999  
*Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies* 1967  
  
*UNESCO-WIPO Model Laws on Copyright for Developing Countries*, 1976  
*UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects* 1995

*Universal Copyright Convention, 1952*

*Universal Declaration of Human Rights 1948*